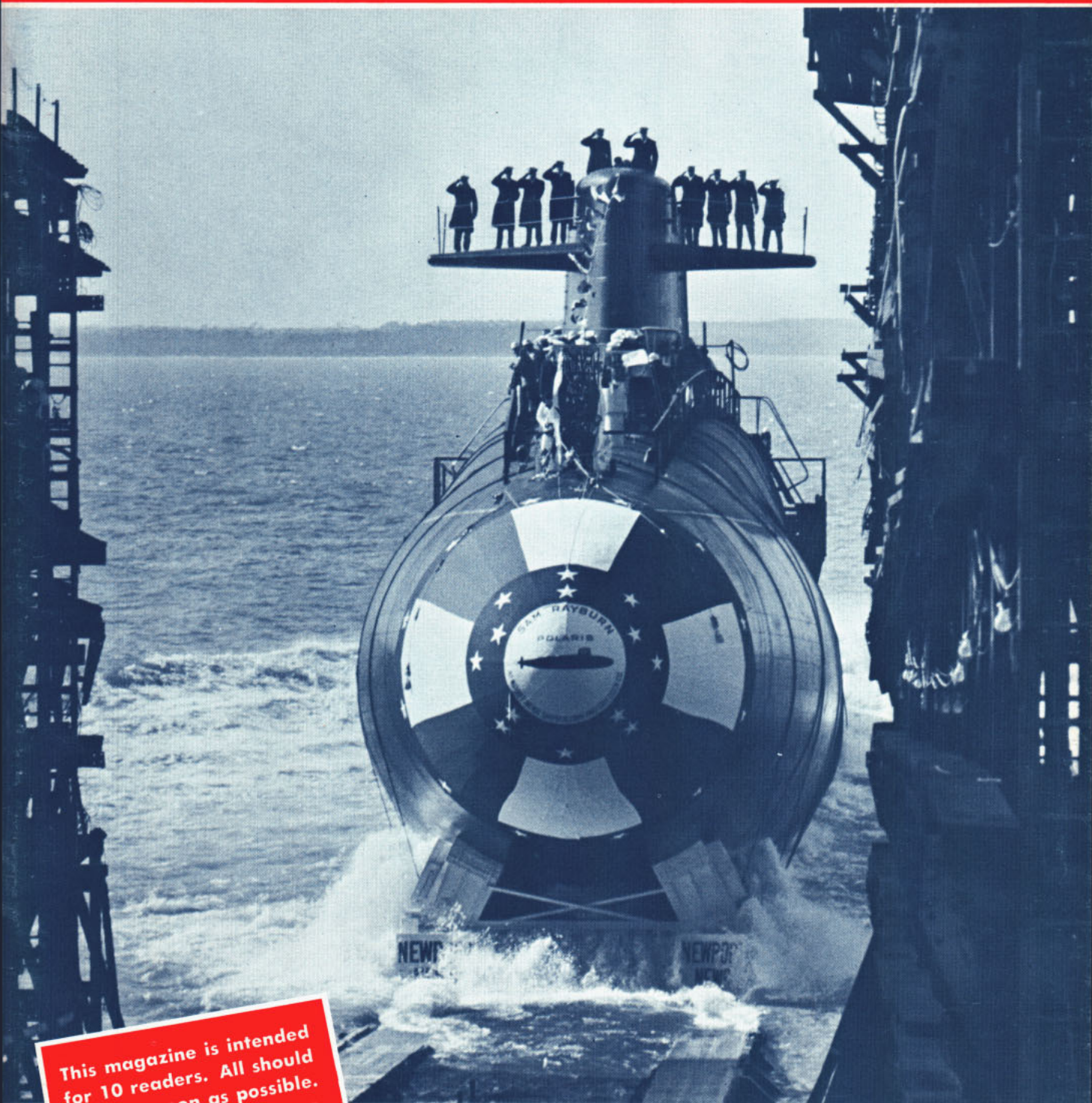


# ALL HANDS★

THE BUREAU OF NAVAL PERSONNEL CAREER PUBLICATION



This magazine is intended  
for 10 readers. All should  
see it as soon as possible.  
PASS THIS COPY ALONG

MARCH 1964









# ALL HANDS

THE BUREAU OF NAVAL PERSONNEL CAREER PUBLICATION

MARCH 1964

Nav-Pers-O

NUMBER 566

REAR ADMIRAL A. S. HEYWARD, Jr., USN  
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The Bureau should be kept informed of changes in the number of copies required.

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Jerry Wolff, **Research**

Don Addor, **Layout & Art**

French Crawford Smith, **Reserve**

• **FRONT COVER:** DOWN TO SEA—Fleet ballistic missile submarine Sam Rayburn (SSBN 635) slides down the ways during launching ceremonies at Newport News, Va. The new Polaris packer is scheduled for commissioning about December 1964. —Photograph by B. L. Bennett, PH1, USN.

• **INSIDE FRONT:** IN LINE—Crew members of attack aircraft carrier USS Oriskany (CVA 34), lined up on the flight deck as they enter port, are reminders of the current Navy theme 'People to the Fore in 1964.'

• **CREDIT:** All photographs published in ALL HANDS Magazine are official Department of Defense photos unless otherwise designated.



CHECK UP — Damage controlman-diver adjusts Scuba harness and (rt.) radiological control team takes a reading.

# Polaris Subs Get Tender

ONE REASON our *Polaris* submarines are able to devote the maximum possible amount of time to patrol missions is because the Navy has developed *Polaris* submarine tenders.

*Polaris* sub tenders are tailor-made to provide complete service to the growing FBM fleet from an overseas anchorage. Because the subs play an immeasurably important role in the defense of our country, the tenders have an important mission—more than meets the eye.

USS *Proteus* (AS 19), the first ship designed for this purpose, was a World War II *Fulton*-class sub ten-

der which was taken out of mothballs, subjected to a complex conversion process, then—in March 1961—taken to Holy Loch, Scotland, to set up housekeeping.

From the start, the *Proteus* crew were charged with putting the submarines into better-than-new condition between patrols ("progressive maintenance") under rigid time limitations—regardless of how much or how little work was involved. The *Proteus* crew developed a maintenance system which was equal to these pressing demands.

*Proteus* continued her labors in

an outstanding fashion for almost two years. Then, early in 1963, another tender appeared in Holy Loch, bid *Proteus* farewell, and settled in to care for the FBM brood.

IF THIS NEW TENDER seemed extraordinarily proud (or perhaps a wee-bit conceited), and seemed to look down her stack at the departing *Proteus*, there was a certain degree of justification for her haughtiness. For this ship was the new USS *Hunley* (AS 31), the first submarine tender built since World War II and the first ever built from the keel up as a *Polaris* sub tender.

Now there are three *Polaris* tenders. Besides the converted *Proteus* and the *Hunley*, there is a sister ship to the latter named *Holland* (AS 32). All three are of strategic importance to the *Polaris* program.

For the statistically minded, a record of the evolution of the *Polaris* tender would go something like this:

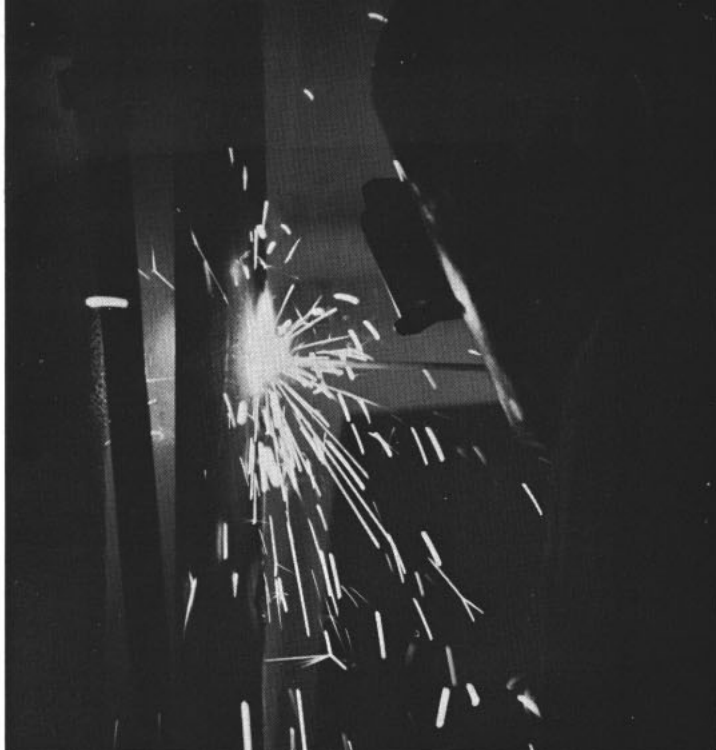
On 15 Jan 1959 *Proteus* arrived at Naval Shipyard, Charleston, S. C. Her conversion was begun four days later. To enable her to accomplish tasks which were not provided for in her original design, *Proteus* had to be cut into two parts and have a "plug" inserted 12 feet forward of the original midship. The new plug was six decks high (63 feet, seven

THE FIRST — USS *Proteus* (AS 19) loads a *Polaris* aboard USS *Patrick Henry*.



ALL HANDS





AT WORK — Crew members work in radiological control and shipfitter shops. Below: Divers surface after hull check.

# Care

inches) with a beam of 73 feet. (*Proteus* was originally built in 1942 as an 18,000-ton, 530-foot tender. She now displaces an additional 500 tons and is 44 feet longer.)

She was commissioned on 8 July 1960 and completed her fitting-out period a couple of weeks later.

ON 16 NOV 1959 A CONTRACT WAS let for the construction of *Hunley*. Work started 15 July the following year, the keel was laid on 28 Nov 1960, and *Hunley* was launched 28 Sep 1961. When commissioned on 16 Jun 1962 she became the second *Hunley* in American naval history (the first was the Confederate submarine named for its financial backer Horace L. Hunley, a wealthy Tennessee native. On the night of 17 Feb 1864 *css Hunley* claimed her page in the history books when she became the first submersible ship to sink another ship—the Union sloop *Housatonic*, in Charleston harbor).

The new *Hunley* is 599 feet long with a beam of 83 feet, and displaces 18,300 tons. She will do 19 knots.

*Holland*, commissioned 7 Sep 1963, is named in honor of submarine inventor and builder John P. Holland. She is the third ship of the Navy to bear the name. The first was a little cigar-shaped submarine—the first commissioned in the U. S.



ON DUTY — USS *Hunley* (AS 31) was built from keel up as an FBM sub tender.



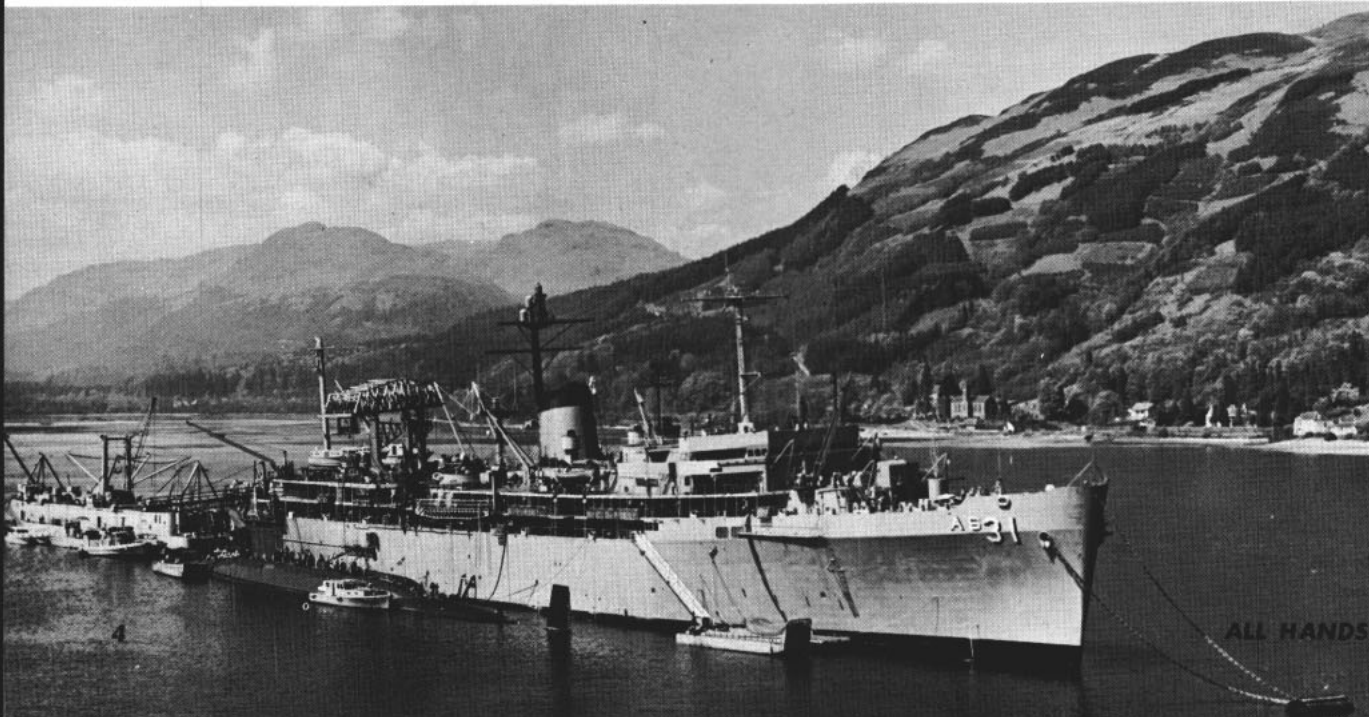




ROLL ON—Stores are stowed aboard *Polaris* submarine. Below: Power cables are run aboard as *USS Sam Houston* (SSBN 609) ties alongside the tender.



LOCHED UP — *USS Hunley* goes about the work of tending her brood with the Cowal Highlands as a backdrop.



Navy—launched in 1897. This submarine, designated the S-1, was 53 feet long, had a submerged displacement of 74 tons, and cost \$150,000. The second *Holland* was launched in 1926 as a submarine tender, the third in the Navy to be so designated.

The new *Holland* has dimensions and displacements comparable to *Hunley*.

**A**LL THREE TENDERS are capable of making any submarine repair short of a major overhaul, including servicing the nuclear power plants of the atomic submarines, and servicing and supplying the missiles and other ordnance carried by them. The tenders have complements of 50 officers and about 1400 enlisted men.

On these tenders, the Engineering and Repair Departments are among the busiest. They have approximately 500 men assigned (they used to be a combined department). The responsibilities of the former include normal engineering functions and the latter has duties associated with repair work on the subs.

The Repair activity is concerned with the operation of 52 shops. These repair facilities compare favorably with those of any naval shipyard, except in over-all size. The ships' mobility permits these capabilities to be delivered to any part of the world.

A highly organized scheduling of work between shops is the key to the success of a rapid upkeep operation.





ON BOARD — Diver is suited up to inspect submarine's skin and (rt.) salad is prepared in Hunley's spud locker.

Work requests are filled out for each task that must receive attention on a sub when it ties up after a patrol. These work requests are sent to the various shop officers, who in turn estimate the manhours per job.

All this information is then recorded by an electronic accounting machine (EAM), and the EAM keeps close tabs on the way work is progressing. If a particular job is behind schedule according to the EAM, a little overtime may be in order. Repair officers meet regularly to discuss any problems they have, such as with scheduling of work.

All work must be scheduled this meticulously because there is no time for duplicated effort. Manhours are conserved as carefully as the proverbial Scotsman saves his coppers—with good results.

**T**ECHNICAL BACKGROUND is a necessity for the repair force. A large per cent of the tender officers are ex enlisted men. Most members of the enlisted repair force have had Navy schooling in some particular trade, and many of these men have completed additional instruction through industrial courses. Project training classes on board familiarize them further with the work, and a rotation program allows for crew members to go to school, then return to the ship.

According to *Proteus'* ex-CO, a sense of immediacy must be main-

tained because, under the new system, the repair force is bound by a short-duration repair schedule. Work cannot be done experimentally—the crew must know well in advance exactly what procedures will be used and they must be highly skilled in using them.

The tenders have all the usual shops, plus others peculiar to their special mission. Gyro ovens, mechanical standards lab, electronic calibration lab, sound analysis, radiological control—these are terms new in the modern Navy. Because the tenders are isolated from well-equipped shore installations, many of the shops are expanded to improve self-sufficiency. The water test labs, for example, are comparable to industrial labs, and the rubber and plastics shops are similar to commercial ones.

A special supply chain has been set up to service the tender on duty in Holy Loch. This consists of regular support ship visits to the Loch, and MATS support for high-priority items.

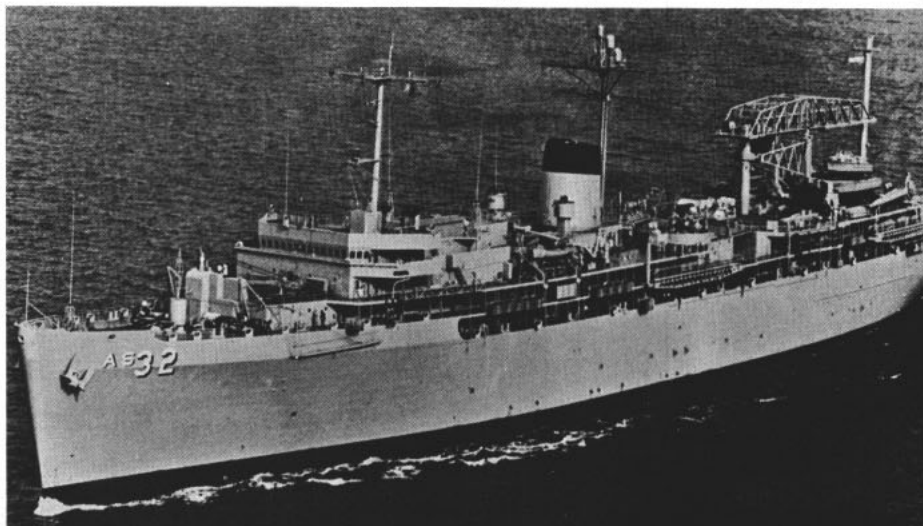
Also, the tenders act as floating motels for the crews of submarines under repair.

The tender crews have a grave responsibility. Before entering World War I, the U. S. had about 32 months of warning that danger was in the making. Before being drawn into World War II, this time lead was 27 months.

Today such time is measured on a stopwatch. If there's a next time, we may have less than 32 minutes' warning. The *Polaris* submarine tender crews are aware of this.

—Bill Howard, JO1, USN

NUMBER THREE — USS *Holland* (AS 32) is Navy's third FBM submarine tender.







SHIP SHAPE — Navy students at NATTC Glynco receive training at realistic mockup of a carrier's CIC.

## What Goes On in CIC?

**E**ACH YEAR, nearly 4000 Navymen wend their way toward Georgia's Marshes of Glynn to a point near the resorts at Sea Island, St Simons Island, Jekyll, Blackbeard and Sapelo Islands.

Tourists who come to the area take advantage of the water skiing and swimming facilities, but the Navy-men arriving at the Golden Isles are headed for Glynco, Georgia's Naval Air Technical Training Center. Their mission is to learn what goes on in the Fleet's combat information cen-

ters and the Navy's air traffic control centers.

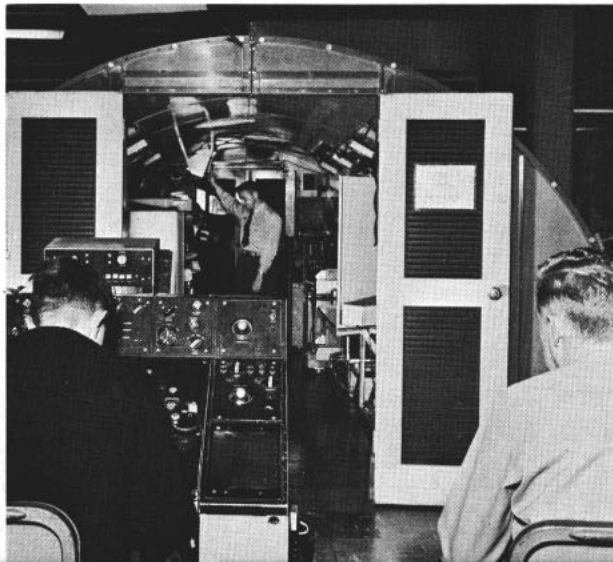
NATTC Glynco arrived at its present location via a circuitous route. During World War II, CIC officers were being trained at San Diego, Norfolk and Camp Catlin, Hawaii. These three installations were later converted to one school located at St Simons Island, about 15 miles from what is now NATTC Glynco.

In the years between the establishment of the St Simon School and the day in 1955 when the present instal-

lation came to rest at Glynco, CIC men received their training at Glenview Illinois' CIC Officers School.

At Glenview, the school began to use mockups of various ship combat information centers. Nowadays, during their sojourn at Glynco, prospective CIC men train in replicas of CIC spaces to be found in *uss Boston* (CAG 1), *Hancock* (CVA 19), *Constellation* (CVA 64), *Coral Sea* (CVA 43), *Worcester* (CL 144), *Allen M. Sumner* (DD 692), *Eugene A. Greene* (DD 711), *Carpenter*

CIC COURSES at Glynco turn out CIC specialists. Students man radar and practice in mockup of AEW CIC.





(DD 825), *Dealey* (DE 1006) and *Rasher* (SSR 269).

In its present form, NATTC Glynco has been combined with the air traffic control schools which were moved from Olathe, Kansas. The CIC classes continued to be taught in the buildings especially designed for them and the ATC schools moved into two blimp hangars which were left over from Glynco's days as a center for lighter than aircraft.

The CIC courses at Glynco turn out specialists capable of manning both shipboard and airborne combat information centers, air controllers for both intercept and antisubmarine warfare and radar intercept operators of the new F4's.

A radar intercept operator is an up-and-coming technician in today's Navy, since he is one of a two-man crew in some of the fastest aircraft coming off the world's production lines today.

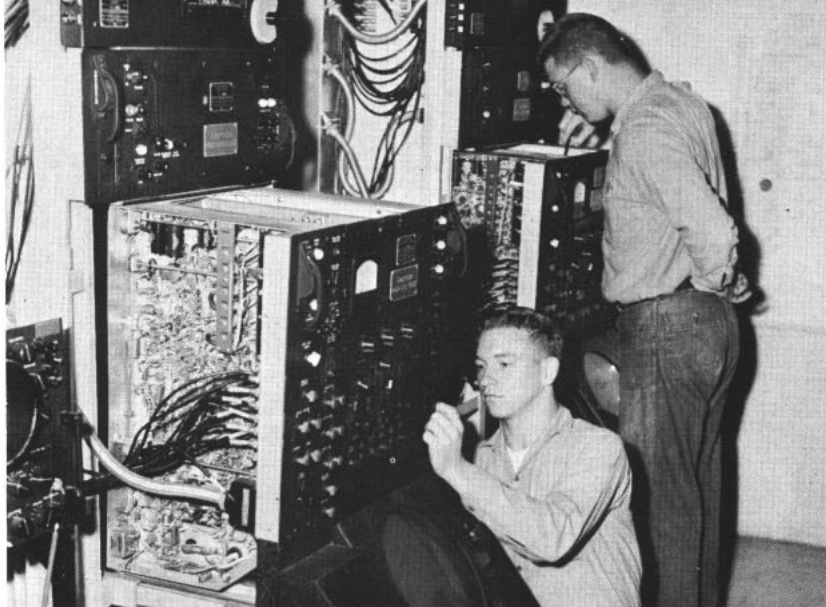
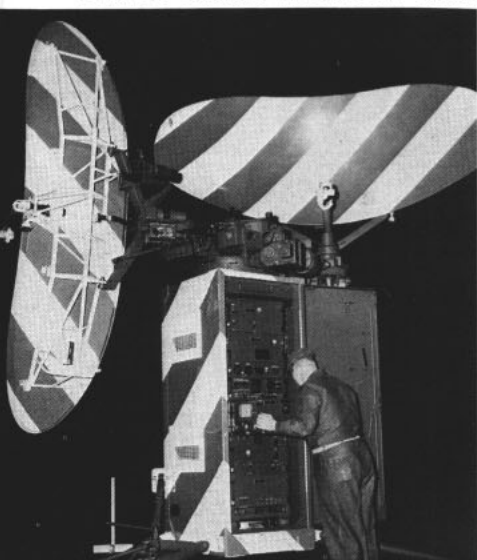
From Glynco's converted blimp hangars flows a steady stream of sailors and officers who leave the air traffic control courses and go out to man Navy control towers at naval air stations and the Carrier Air Traffic Control Centers on board aircraft carriers. The ATC classes also turn out graduates for the Coast Guard, Marines and Army.

From Glynco's classrooms, CIC graduates go to the Fleet to man its combat information centers where they are the first to see threats to their ships as blips on their radar-scopes.

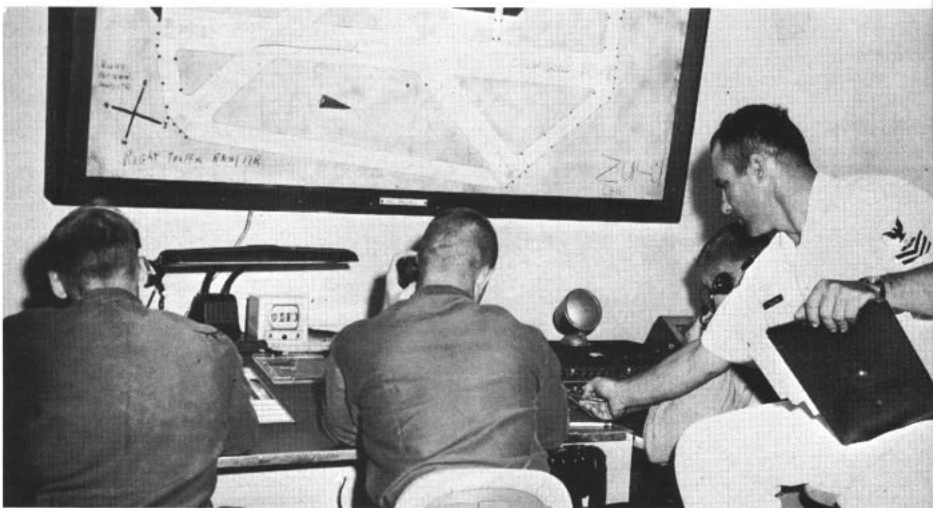
Glynco's air traffic control men have to be good, for when a man is shepherding planes off and onto a carrier or a busy landing strip, there's no margin for error.

—Ray Lucasey, JO1, USN

**STRIPES**—Student checks GCA radar.



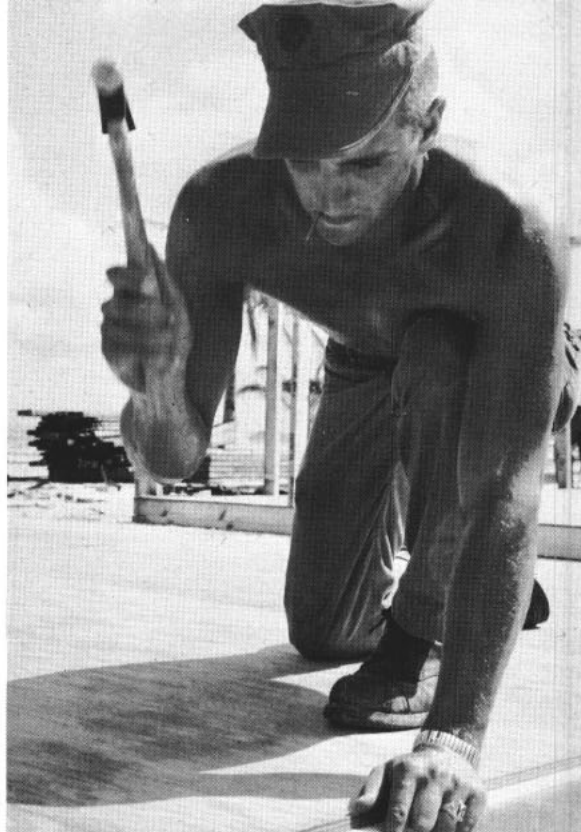
**MAINTENANCE TOO**—Glynco also teaches Navymen how to keep GCA gear running correctly. Below: Air control students learn in mock control tower.



**BOARD WORK** — Students keep Glynco staff members busy at plot board.







LARGE OR SMALL, new MCB equipment and allowance list shows kinds and amounts of gear needed for construction.

# Seabees Use Lots of SOAP

**I**F YOU SHOULD GO on leave and forget to take along some small but essential item, such as a toothbrush, chances are you'll find an inexpensive substitute at any corner drug store. If, however, a Seabee outfit should forget the hacksaw blades while on deployment, it might be in a real pack of trouble.

While on deployment, Mobile Construction Battalions are often far from normal supply sources. If small

items such as paintbrushes or 10-penny nails are left behind, a heavy operating schedule could slow to a walk or come to a grinding halt even in a can-do outfit.

On the other hand, a battalion might take along 10 drill presses, then discover that five were quite enough. Perhaps also, the MCB might carry with it large quantities of old, beaten-up tools of no use whatever for a specific operation.

To avoid these twin headaches, the Chief of Naval Operations has provided the MCBs with a "purified" equipment and allowance list called the P25A. The list shows the kinds and amounts of tools and equipment any battalion should need to carry out a general construction program for 180 days under combat conditions.

The P25A gear is handled efficiently by COMCBPAC in two parts:

IN THE BOOKS—MCB 11 checks stock against ComCBPac allowance. *Right:* One of 3000 line items is inspected.



- General equipment common to all battalions.

- Items not normally required, but supplied by COMCBPAC if needed.

Closely linked to the P25A concept is SOAP, or the Supply Overhaul Availability Program, an inventory of part 1 of the COMCBPAC allowance. SOAP was introduced at the CB Center in Port Hueneme, Calif., in January 1963.

**I**N GENERAL, the SOAP process involves laying out all battalion gear on deck, making up kits which can be hand-carried, then backing up the kits with portable tool rooms. Here's how the process works, and what it means:

Laying out the gear before deployment serves several purposes. It gives the Seabees a good look at the tools and equipment available to them before deployment. By tearing down and building up their own supplies, they know exactly what's on hand to do the job.

It is also a good way of spotting items in need of repair or replacement, and items in excess of allowance. Only items in serviceable shape, and within requirements, are carried on deployment.

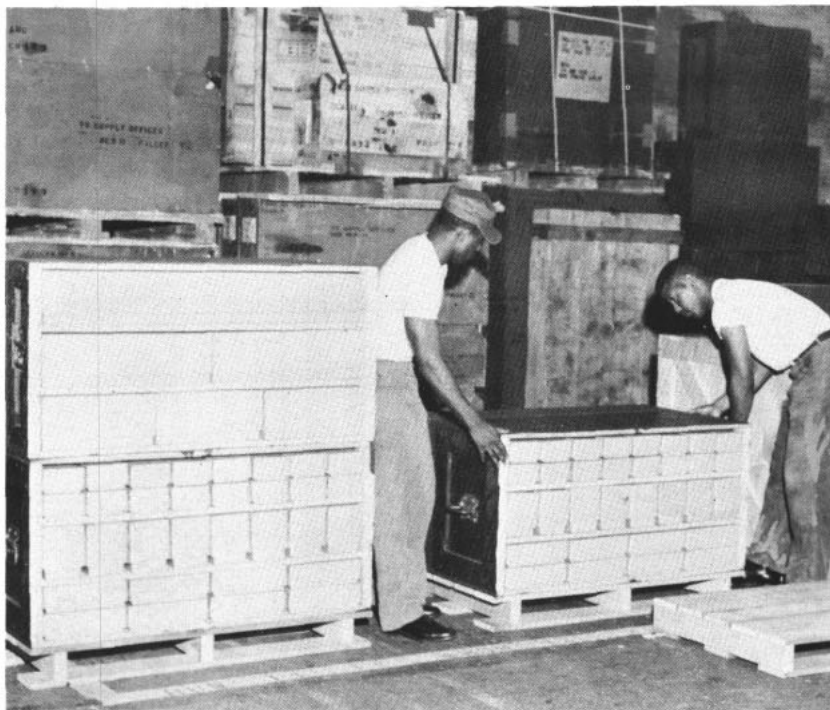
A complete inventory is then made of every file, hammer handle, socket wrench, flash bulb and what-not,



**GETTING SET** — Tools are cleaned and put through preservation process. *Below:* Gear is laid out for inventory.







**PACKAGE DEAL**—Supplies are packed in portable tool rooms for deployment.

using appropriate stock numbers. Record cards are made, listing each item by number and location.

Next, kits containing items on the COMCBPAC allowance list are made. The kits may contain carpenter tools, plumbing equipment, drafting devices and supplies, or even a complete barber shop. Though the kits may contain a wide variety of different items, they have at least one thing in common—all can be picked

up and carried by two men, insuring Seabee mobility.

A simplified tool room system is used to back up the kits. This involves the use of cardboard boxes of various sizes, each containing a different item. The boxes, when filled, fit into specific spots in a large pack-out box. On deployment, the pack-out lids can be removed and the Seabees have a ready-for-use tool room. Aside from added convenience, this

method of packing has increased the volume of gear that can be hauled.

**B**EFORE DEPLOYMENT, each MCB goes through the P25A/SOAP process. Returning from deployment, the battalion has a two-week de-SOAPing.

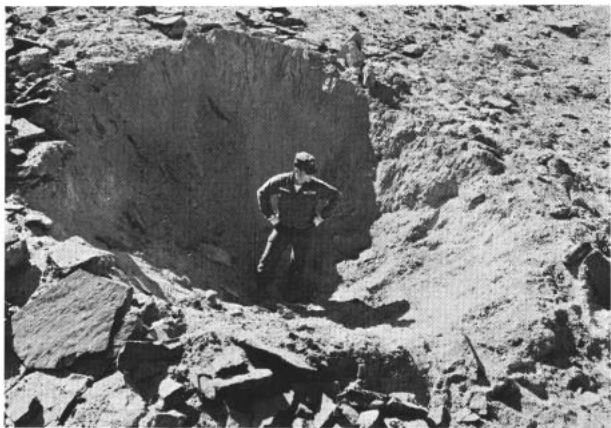
Even though the P25A/SOAP is looked upon as a “dry run” technique, it has met with enthusiastic acceptance during the past year. It is still under constant review. For example, battalion commanders have been asked to comment on the value of items in the P25A allowance. If something of value is not included, the listing may be revised. At the same time, COMCBPAC wants to know if an item is completely worthless.

In addition, the new procedure furnishes CBPAC with a guide for budget requirements. For example, the standard allowance listings give the Force a base from which requests for funds can be initiated. And, if deficiencies are uncovered, the system makes it easy to pinpoint the cost of bringing a battalion up to snuff.

All this may be a far cry from the traditional “pack rat” concept associated with MCBs, but the Seabees themselves welcome the chance to be self-sufficient while on deployment. Through the P25A and SOAP procedures, the battalions know at all times exactly what’s available. What’s more, they have quick, easy access to any item. —Marie Levi.

**SOAP AT WORK** — Supply Overhaul Availability Program gives the SeaBees what they need out on the job.





THE JOB — Seabee of MCB Ten surveys crater left after bombing. Right: Crater is being filled with debris.

## Bombed Out, But Back in Action

Navy pilots aren't specifically trained to blow up U. S. Navy airfields—but they can. And they did.

The Seabees, on the other hand, are trained to patch up airfields, so they came in handy after a flight of A4C *Skyhawks* had pockmarked the landing strip of a deserted Navy airfield with high explosive bombs.

Bombing of the abandoned air strip near Holtville, Calif., was no accident. It was a test of how effectively Navy pilots could tear up the place and how well—and how quickly—the Seabees could put it back together.

A few minutes after the attack had ceased and the offending *Skyhawks* had disappeared over the horizon, a detachment of 35 Seabees went into action. First, the airfield was inspected to make certain there were no unexploded bombs. Next came a pre-repair survey party to have a look at the damage and plan for the repairs.

Before work began, the Seabees cleaned up the shrapnel and debris from the runway and the craters.

Then came the heavy equipment; front end loaders, dump trucks, motor graders, compaction rollers and a small bulldozer.

The craters were shaped for patching and partially filled with sub-grade material. Fill was added to the holes and, layer by layer, packed down until the level of the fill was only a few inches below the surrounding runway.

Each crater was then surfaced in one of two ways. On some craters hot asphaltic concrete was applied, rolled, and allowed to cure. Other craters were surfaced with a new aluminum matting, developed recently by the Marine Corps for use as a runway.

Just two days after the *Skyhawks* had bombed the runway, the holes had been patched and a towed trailer, weighted to simulate F4B aircraft, was pulled across the runway. All patches met the specifications.

The Seabees loaded their gear in trucks and returned to MCB 10, at Port Hueneme, Calif.



NEXT — Select fill is added and after watering down hot asphalt is applied.



FINISHING TOUCH — Aluminum matting is used for a wear surface and (left) weighted trailer tests the surface.





# Bainbridge-Navy's Own Prep

**I**F YOU FEEL you've let opportunity pass you by, perhaps this is because you believe that opportunity knocks only once. But don't be deceived. One measly little knock cannot serve as the exclusive agent for all the opportunities available in many fields today.

Here's an illustration: You're young, and eager to get ahead. As just one of the many extraordinary opportunities available to you as an enlisted man, how would you like to be enrolled as a midshipman in the United States Naval Academy, and eventually graduate with a degree, a commission, and a new lease on life?

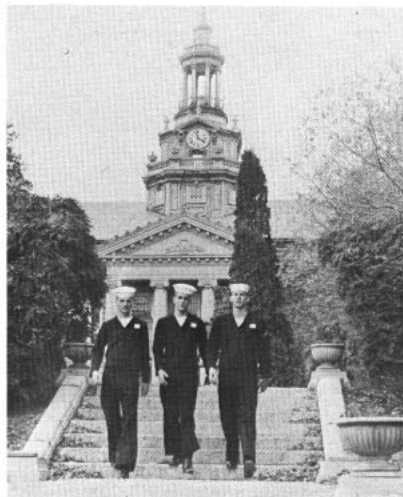
If you can meet the age, academic and physical standards—then you can be very much in the running. The Navy, through the facilities of the Navy Preparatory School in Bainbridge, Md., will do all it can to help you.

If you're beyond the age limit, this information may apply to a shipmate in your division, or to your brother—or to your son. It's a wonderful opportunity.

Historically speaking, for many years enlisted men who possessed officer potential had no access to the Academy. Then, during the administration of President Woodrow Wilson, the Secretary of the Navy was empowered to nominate a limited number of qualified enlisted men of the Navy and Marine Corps.

The first quota was very small—15 appointments. But it was not filled because very few men could pass the Academy entrance examinations without some formal preparation. So, in December 1915, the first Naval Academy Preparatory class was formed at the Naval Training Station, Newport, R. I. There were 11 students.

In subsequent years the number of appointments available has been increased. Keeping pace, Naval Preparatory Schools were operated at Norfolk, Va.; Bainbridge, Md.; San Francisco and San Diego, Calif. During the Korean War the school was returned to Bainbridge Naval Training Center as a component of the Service School Command. Here it occupies the area and buildings of a



former private school for boys.

As you probably know, you must receive an appointment before you can enter the Naval Academy. There are various ways an individual can be appointed, but the way that interests you is known by law as Title 10 U. S. Code 6954. This is the law that permits the Secretary of the Navy to appoint, each year, 160 enlisted men of the Regular Navy and Marine Corps.

**W**HAT SORT of man is selected for this pipeline to a career as an officer? Typically, your high school grades were average or better, and your ability is above average.

You are a U. S. citizen, of such age that you will not have passed your 21st birthday on 1 July of the year in which you are admitted to the Naval Academy. You generally would be a high school graduate or the service-accepted equivalent, and have a combined GCT-ARI score of 118 or better (the high school credit requirement will be explained in more detail later in this story).

You must be unmarried and able to pass the required physical examination.

Beyond that, you must be *strongly motivated toward a career as an officer in the Navy*, have a good record, and receive the endorsement and recommendation of your commanding officer.

These are not, by reasonable standards, what you can call forbidding requirements—nor easy ones.

**T**HE BUREAU of Naval Personnel issues BuPers Notice 1531 each year. This describes the procedures by which commanding officers nominate personnel for the Naval Preparatory School. This nomination for NPS is your first step. At NPS you become a candidate for appointment to the Naval Academy under the Secretary of the Navy's quota.

A paragraph setting forth the mission of the Naval Academy is included:

"To develop midshipmen morally, mentally and physically and to imbue them with the highest ideals of duty, honor and loyalty in order to provide graduates who are dedicated to a career of naval service and have potential for future development in mind and character to assume the highest responsibilities of command, citizenship and government."

Here's where the motivation factor comes to bear. There is a screening process which enables the Navy to select only those candidates who appear capable of living up to this mission. Only if you are a strongly motivated volunteer will you stand a chance.

The wheels are set into motion when you submit a special request to your commanding officer asking permission to be considered as an applicant for admission to the Naval Preparatory School.

*Now is the time to get started, if you're interested in being considered this year.*

Then you will:

- Prepare a NavPers Form 2928, *Application for Assignment to Naval Preparatory School*.

- Receive a physical examination, and complete Standard Forms 88 and 89.

Your commanding officer will appoint a board of three officers who will interview you and the other applicants. Then your CO will personally interview you, and decide whether or not you will be recommended for the program. His decision will be based on whatever evidence he has of your good moral character, motivation for a career officer status in the Navy, and your academic potential.

- Then, on 16 April, you will take

# School

the Fleet screening examination. This is designed to determine your capabilities in the fields of mathematics (algebra and plane geometry), English, and physics or chemistry (you may elect to be examined in either physics or chemistry, or both).

Your application and your test scores are closely scrutinized at the Prep School. A selection board—made up of the commanding officer, the academic director and other members of the faculty at the Prep School—screens all the applications, considering your high school transcript first and your Fleet screening examination scores second.

If you get past this stage, then all other information, including the report from your preliminary physical examination, is considered. If the selection board members are doubtful about borderline factors, they check with Academy officials to determine whether or not the candidate can still qualify.

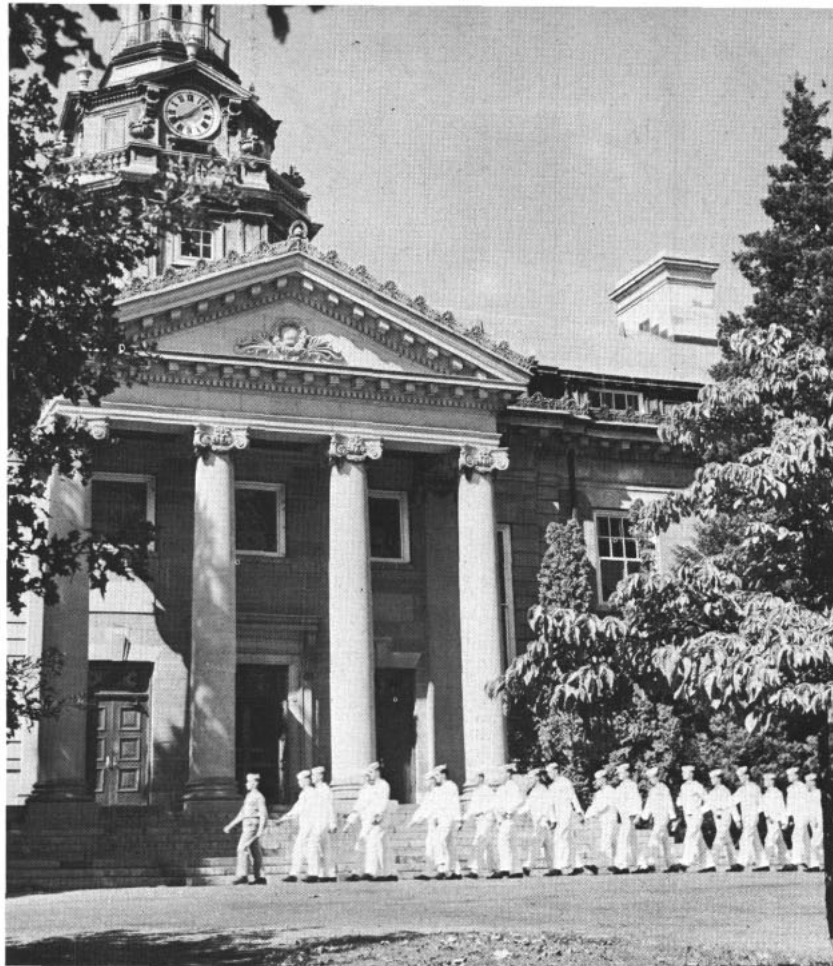
There is a limit to the Prep School's facilities, so if you are still in the running after these first stages of elimination, your qualifications will be compared with those of other applicants to determine where you stand. Your records then undergo further screening at the Naval Academy before final acceptance. About 350 men will finally be chosen.

**T**HEN THE BIG DAY arrives. Your commanding officer is notified sometime in July that you have been selected for admission to NPS, and your transfer to Bainbridge takes place shortly thereafter. You soon become a NAPster, and part of a tradition.

As you begin settling in, you learn that the military organization of NPS is similar to that of the Naval Academy. The student brigade (called battalion at NPS) is divided into three companies of four sections each, with about 25 men in each section.

First, you will be assigned to a section, and a section leader will be appointed on the basis of seniority.

Depending on which company you are in, your new home will be either Madison House, Harrison House or Tome Inn. Generally you will share



**OFF THEY GO**—Company of NPS students march to classes held in Tome Hall.

a room with one other student, but if you become a student company commander you will most likely have a private room.

The section leaders are responsible to the student company commander, who is assisted in his duties by a student executive officer and adjutant.

The company commanders are further responsible to the student battalion commander, appointed on the basis of seniority and ability.

The NPS battalion is under the direct supervision of the battalion officer, and each company is supervised by a company officer who reports to the battalion officer. These positions are held by commissioned officers who are regular members of the school staff.

The positions of student leadership within the battalion are periodically rotated among the students to develop traits of leadership.

The sections and companies com-

**NAVAL PREP School teaches subjects which are most important at Academy.**







HOOTENANNY—NPS students relax with a song between study and classes.

pete against each other in the military and intramural aspects of their daily routine. At the close of each marking period a color company is named for the period, and at the end of the year the outstanding company is named color company of the year.

**Y**OU WILL MEET the school's commanding officer, who is currently LCDR Peter A. Stark, Jr., USN. LCDR Stark is most qualified for this position. He is familiar with the operation of NPS because he graduated from there himself in 1948, entered the Academy and graduated with a commission and a Bachelor's degree in 1952.

His naval career probably began something like your own—he joined on a regular four-year enlistment in 1946 and was in Class "A" metal-smith school when he applied for the program.

Just before receiving his present command, LCDR Stark was executive officer of one of the Navy's guided missile ships — *uss Hoel* (DDG 813). All of this is to point out that it *does* happen.

LCDR Stark will probably start by telling you that he hopes you're at NPS because you really *want* to be there; that if you don't really feel that the life of an officer in the U. S. Navy is the life for you, then you will be wasting a lot of peoples' time, including your own.

He will tell you that you are at NPS to prepare yourself for entrance into the Academy; to receive a good academic background, so you will be

able to remain in the Academy once you get there; and also to prove yourself capable in other areas. He may also remind you that now is the time to form good study habits.

He will explain that the course of study you are about to begin is an intensive review—at an accelerated pace—of a secondary school curriculum in all those subjects which are most important at the Academy.

**A**ND YOU WILL LEARN other things that you must know, and accept, if you are to be successful at NPS. For instance:

You are not in competition with the other students at the school, but you are in competition with academic scales. The standards are absolute. You must reach a certain level of performance, and unless you can do this, you will be out of luck.

On the other hand, very few people ever fail the course at NPS. Most of those who leave do so for other reasons. It is important that you understand you will never be forced to remain at NPS. The fences are low enough so you can jump them at any time. Anyone who has a change of heart can voluntarily withdraw. Remember what was said about wasting a lot of peoples' time?

But right now you're saying to yourself, "If I ever managed to get into the school I certainly wouldn't drop out." Assuredly almost every young man who enters NPS probably feels the same way. But, many eventually do have a change of heart for the following reasons:

- The Naval Academy, while it is considered one of the finest schools in our country, is a highly specialized school—as is any service academy. Hand in hand with its engineering curriculum, its program is designed primarily to create capable commissioned officers for the Navy. This is the *hard* way to earn a commission. It differs from the usual college education in its ultimate objectives. If you are looking for a liberal arts degree, this is not for you.

- You must remain unmarried until graduation from the Naval Academy, and Susie Bell must understand this. Much of the attrition at NPS is the result of wedding bells ringing for students who are so eager to begin their careers as husbands that they are willing to forego careers as naval officers.

- You must be entirely free from all financial obligations. As CDR A. D. Garvin, USN, Commanding Officer of the Schools Command at Bainbridge puts it, "You cannot even support a parakeet."

You don't need a great deal of money at the Prep School but it is strictly a "break even" proposition. You must cancel all recurring expenses — magazine subscriptions, book - of - the-month clubs, record clubs, and all other expenses of this nature. You will not be able to manage a contribution to your family's income. If you have an auto, you must either get rid of it or leave it at home. You cannot work during your free time; the only moonlighting you do at Prep School and the Academy is studying.

- You must get used to taking orders. A typical class includes one E-5, seven or eight E-4s and the rest non-rated. For this reason, small differences in rank mean considerable difference in authority. You must learn to accept authority for authority's sake, and if you cannot, you will never make the grade.

- You must become accustomed to a special set of regulations *besides* the Uniform Code of Military Justice. You can come under fire for offenses at NPS which are not specified as offenses anywhere else in the Navy. Because you are a midshipman candidate you must display strong personal honor and integrity.

**T**HE QUOTA of 160 men per year still stands. It *can* be filled, but

it doesn't *have* to be. It's up to you.

#### Daily Routine

Next you will be concerned with your daily routine. It will look like this:

0600 *Reveille*

0630-0720 *Breakfast*

0730 *Morning quarters*

0810 *Commence classes*

(There are four morning periods of 50 minutes each.)

1150 *Noon quarters*

1200-1235 *Lunch*

1300 *Extra instruction* (for students requiring it)

1345-1530 *Afternoon classes* (two periods)

1530-1715 *Intramural sports* and varsity team practice

(Everybody must participate in one or the other)

1730-1830 *Evening meal*

1930-2130 *Evening study*

2200 *Taps*

This is the Monday through Friday schedule. On Saturday morning there is usually barracks inspection or personnel inspection. Or the school may arrange for a speaker to address the student body on such subjects as finances, admission procedures of the Academy and related topics.

Occasionally a group of Academy midshipmen, usually first and second classmen (and former NAPSters), will visit and have brainstorming sessions with the students, and pass on much useful information, advice and encouragement.

From September to March, the six daily 50-minute periods are devoted to the following subjects: Vocabulary and reading, rhetoric, physics, algebra, plane geometry and study hall. Character education is given one period a week. Physics lab is given once a week in place of rhetoric.

There are varsity sports teams in football, cross-country, swimming, wrestling, track, tennis and lacrosse. These compete with teams from junior colleges, state teachers' colleges and the Naval Academy plebes.

The climax of your studies at NPS comes on a Saturday in March after the fourth marking period. This is when the entire student body takes the College Entrance Examination Board exams, the results of which are used to determine your final acceptance to the Academy.

Saturday morning is spent on the scholastic aptitude tests in the verbal and math categories, and the afternoon is devoted to English and in-



**NOW HEAR THIS**—Students pay close attention to teacher in physics class.

termediate math achievement.

Then the seemingly interminable six- to eight-week waiting period begins—waiting to learn if you have been accepted and will receive an appointment to the Naval Academy.

You don't pass the time idly. NPS then throws the whole learning process into high gear, shifts the content and emphasis of the curriculum, and pounds you with a post-exam course of study until May. This is to give you a running start in your plebe year at the Academy.

You begin a concentrated writing course, change from plane geometry to trigonometry, begin chemistry and mechanical drawing, and continue with physics and algebra.

As you can see, the courses are pretty stiff. This is why you should have a good secondary school background before applying. The school is not intended to complete your high school education, but is intended to be a means of providing a review of the work which should have been mastered before.

**I**T IS ESSENTIAL that you have an acceptable secondary school certificate, which should include as many as possible of the following studies:

- Three years of mathematics (since the elements of advanced algebra, geometry and trigonometry are essential to the Naval Academy course).

- Three years of English.

- Two years of a foreign language, preferably modern.

- One year of chemistry, with a year of physics in addition being

desirable.

If you should be accepted at Prep School without this background (as has occurred with only a few candidates), you will find the work very difficult, and will have to make correspondingly greater efforts to grasp the material. But the Prep School course, if satisfactorily completed, will provide you with the following credits to be added to your high school transcript:

- One unit of English.
- One unit of algebra.
- One-half unit of trigonometry.
- One unit of geometry.
- One unit of physics.

By this time you look around you—and over the past nine months. It is May, and everyone at school is busily preparing for graduation ceremonies.

You are aware that your class has decreased considerably in size from the 350 you began with. Some of the fellows just couldn't make the whole stretch, for physical or other reasons, and the weeding-out process continued through the year.

But you are also aware that your chances are better than ever. You have received an excellent review of your high school work, and you have the added advantage of becoming accustomed to the rigors of the Naval Academy in the past nine months.

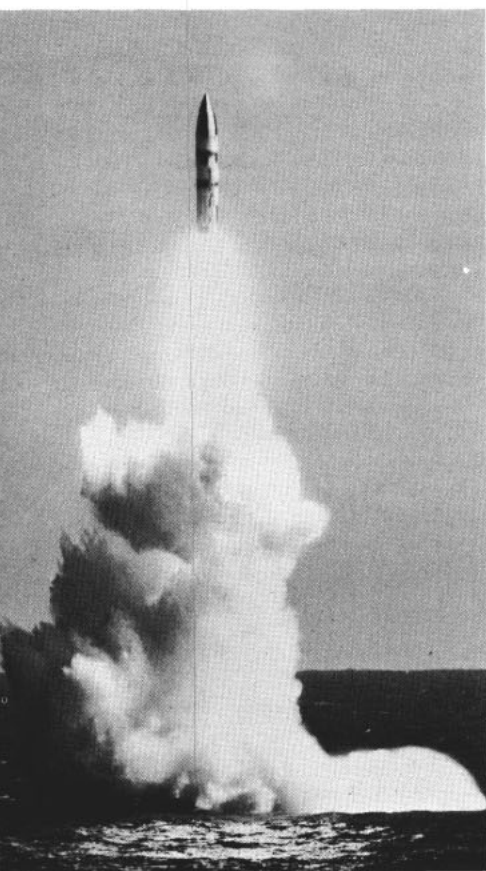
Now the real work begins, but you are prepared. After a brief leave, you will report to Annapolis in late June as a midshipman.

Thus you have seen how it can happen—and does happen; how you can answer opportunity's second knock.

—Bill Howard, JO1, USN.



# Navy Scenario



*When Secretary of the Navy Paul H. Nitze assumed the responsibilities of his new duties with the Naval Establishment, he brought with him a background of long experience as a career government official. He has served in various capacities under five U. S. presidents and, before taking over as Secretary of the Navy, was Assistant Secretary of Defense for International Security Affairs.*

*One of his early actions as Secretary of the Navy was to address the officers of the U. S. Navy and Marine Corps assigned to headquarters duty in the nation's capital.*

*What are the challenges to the Navy in the rest of this decade and the 1970s? What are the problems and what are the solutions? In the following extracts of his address, ALL HANDS publishes the straightforward and realistic remarks of our new Secretary of the Navy.*

**I** WOULD LIKE TO outline for you what I consider to be the great strengths and opportunities of the Navy and the Marine Corps, now and in the future. These comments are largely my own preliminary re-

flections. However, I have discussed them with the Chief of Naval Operations and the Commandant of the Marine Corps, and find my views are in general agreement with their own.

I hold that the Navy and Marine Corps are going places. Some may say why do you believe this? Aren't we getting a smaller number of ships, fewer people and less support funds in the '65 budget than we said we needed? Aren't there rumors of fund cuts, base reductions and economy measures that will degrade our posture?

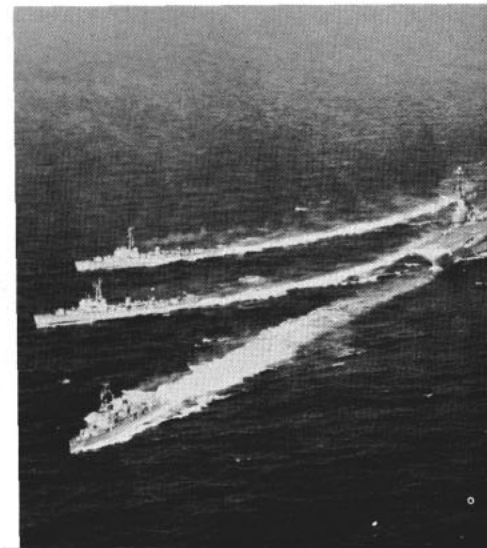
Some of these things may have that effect—some may not, but the fact remains that today, we do have a larger, more modern and more powerful Navy and Marine Corps than ever before in peace time.

My judgment concerning the future is based upon a consideration of the development within the world political scene and in the technology of war. It is reinforced by my confidence in the historically demonstrated capability of the Navy and Marine Corps leaders to capitalize on trends, and to adapt the versatility of seapower to these trends.

**L**ET ME BRIEFLY DISCUSS these developments and my preliminary view of our role in them.

The exploding technology of this age, especially in the field of thermonuclear weapons, missiles, their platforms and controls, is giving each of the super-powers an ever-increasing capability to damage the civil population and the industrial base of the other.

These developments have taken



# of the 1960's and 1970's

from our homeland base the full protective shield which our control of the seas used to provide. Yet at the same time, these unpleasant realities have made *the use of the seas, either for the prevention or the waging of central war—intercontinental nuclear war—more important than ever before in our history.*

The only strategic weapons systems which we estimate is completely invulnerable against surprise attack, now and in the foreseeable future, is our deployed *Polaris* system.

## Polaris, A Proved Deterrent

**T**HE TESTED and proven reliability of the *Polaris* missile system has made it possible to ensure that a high percentage of the missiles of this invulnerable second strike force will be able to reach their targets in an aggressor's homeland. Furthermore, the added range provided by the A3 missile will open up the entire Eurasian continent to this lethal deterrent.

By 1970 we will have 41 *Polaris* submarines, with 656 secure and reliable missiles. The majority will always be deployed, on an alert status, ready to strike if needed.

Modern technology has reduced the oceans to the point that our continent is vulnerable to direct attack. We can be thankful, however, that these very oceans provided the medium in which the deterrent force of our *Polaris* weapons system could be deployed, under the genius of our Navy's forward-mindedness, technical talent, and superior management. This, together with the missiles and bombers of the Strategic Air Command, provides, and increasing-



SecNav Paul H. Nitze

ly in the future, will provide the United States with a very formidable deterrent indeed.

## Exploring Multilateral Force

**T**HESE DEVELOPMENTS in strategic weapons systems, together with other facts of international life, are increasing the dependence of free sovereign states upon one another.

The expense of thermonuclear missile systems precludes nations, other than the two super-powers, from building strategic forces of full deterrent force. This means that other free countries, in varying degrees, must base their confidence in their continued sovereignty upon the strategic weapons systems of the United States. For some of our European allies, it is understandable that this is not a wholly satisfactory relationship. They are demanding added participation in strategic systems dedicated particularly to the defense of Europe.

To achieve the multilateral ar-

rangements, which seem to provide the most feasible basis for bridging this political problem, thought has turned (increasingly) to multilateral deterrent forces on the high seas.

It is United States policy to support the creation of a multilateral missile fleet. The competent naval authorities believe that such a force would be militarily effective—a judgment in which the Secretary of Defense and I concur.

Current allied discussions of this concept, in Paris and Washington, are making good progress. It is too early to predict their final outcome, but we of the Navy should take pride in the fact that we are being called upon to explore this possible solution, and that we are in our medium. We are in the vanguard of this politically important exploration. We should welcome its military-political challenges.

There is another aspect of developments in strategic weaponry which has added import to our sea service. The increasingly mortal nature of the destruction which each side can wreak upon the other in the future makes resort to thermonuclear war, except in the last resort, increasingly irrational.

This has added to the importance of the non-central war weapons systems, because under the umbrella of our main deterrent, they are likely to be the cutting edge of our usable power.

## Fast Carrier Striking Force

**T**HE GREAT CHALLENGE to us all lies in the exploitation of the politically usable seapower of our Navy and







GUIDED MISSILES and atomic power are a potent deterrent to aggression.

Marine Corps in the years ahead.

First among these politically usable systems is the fast carrier striking force.

Its primary role has always been that of limited war. The secondary role of this weapons system is now moving away from that of a major component of our alert strategic forces for the initial phase of a central war. We can, however, expect that it will continue indefinitely, in its role as an important strategic reserve for such a war.

More importantly, while retaining reserve strategic operational capability; the inherent flexibility of our attack carrier forces enables us to provide readily available deployed tactical aircraft, capable of participating in either tactical nuclear or conventional war.

There is a growing realization that the political invulnerability of attack carrier forces is vital to our success in supporting foreign policy in all phases of peace and war. This realization also recognizes the unique capability of attack carrier forces to concentrate enough tactical air power at the right place, at the right time, to deter or win limited wars.

Of course, this capability depends upon our having adequate numbers to cover the unexpected, as well as the expected situations.

By the end of this decade, assuming that the CVA started this year is in the Fleet by then, the Navy will have only three of the smaller *Essex* class attack carriers, plus three *Midway* class and nine *Forrestal* class or

better. *As a result, the Navy will then have far more carrier combat capability than we were able to put to sea in 1961.*

#### Carrier Warfare in 1970s

OUR PRESENT PLANS indicate that the Navy will, by 1970, have replaced numerous A4B, A4C and the A4E aircraft. These aircraft, and carriers, will give us a marked increase in our striking power, in weight of ordnance deliverable and in range, over the 1961 figures. Moreover, these aircraft will, by 1970, be using modern conventional ordnance. The effectiveness of those using *Walleye*, and other modern ordnance, will have increased measurably in comparison with 1961.

I can report to you that the approvals of the concepts involved in these aspects of carrier warfare represent forward strides in understanding between the office of the Secretary of Defense and the Department of the Navy.

A study of the Sea Based Carrier Strike Force of the future has been conducted by the staff of the Chief of Naval Operations. Thereby it was established that the carrier striking force would retain an important mission in any limited war of the '70s, and that there are distinct advantages to its use in certain contingencies in which neither tactical air, permanently based overseas, nor CASAF (Composite Air Strike Assault Force) wings could be used as well.

I might add that close working

liaison with the personnel of the office of the Secretary of Defense made it possible for us to reach a mutual understanding in our thinking, and particularly in terminology.

It was a follow-on implementing study conducted by the Chief of the Bureau of Naval Weapons, under the guidance of the staff of the Chief of Naval Operations, which analyzed the specific requirements for a VAL (light attack plane) to support the sea-based carrier strike force of the '70s, and which certified the feasibility of its construction. Again, working liaison with the office of the Secretary of Defense was not only beneficial, but essential.

A third study, equally significant for the future carrier striking force, was the Navy's Conventional Aviation Ordnance Study.

Each of these studies represents a distinct success for the Navy, operating as an integral member of the Defense Team. Each has demonstrated that the Secretary of Defense is responsive to a well justified requirement.

Each has added a new dimension to the capability of the carrier weapons system.

#### Nuclear Propulsion

IT IS TRUE THAT there is another aspect of the carrier weapons system still to be evaluated. The Navy view, as you know, was that authority and appropriations should have been requested from the Congress, so that CVA 67, and future carriers, as well, could be provided with nuclear propulsion.

As a newcomer to the evaluation of nuclear propulsion, I have found no one in disagreement with the proposition that a given nuclear propelled ship is superior to a similar ship with conventional propulsion, or that the former is more expensive. I have found, also, that the issue of how best to optimize effectiveness at a given level of cost, or alternatively, how to minimize cost at a given level of effectiveness for carrier task forces, including escorts and replenishment ships, has complexities. We find ourselves trying to equate greater numbers of one type to fewer numbers of what are usually a more expensive type.

Our real desire is to benefit from the advantages which nuclear power might afford us, and not to offset

this benefit by losing the advantages which come from adequate numbers.

#### Needs in Field of Anti-Air Warfare

**T**HERE IS AN ADDITIONAL complication in resolving this question of nuclear power.

It emanates from the fact that the majority of informed opinion doubts that the advance *Typhon* AAW System, which it was planned to install in the larger DDs—probably nuclear powered—would fully meet our needs. This doubt leaves us without assurance of a sophisticated advanced AAW suit for the combat support ships of the 70s. Intensive work is going on to develop a system which will give us that important assurance.

In the meantime, there is necessarily uncertainty as to the size of the fast escort ship we will desire to build when the AAW question is resolved. Without the answer to that question we risk making the wrong decision by building a small number of nuclear escorts large enough to house present nuclear plants, but at a cost so large as to preclude providing adequate numbers of AAW and ASW platforms.

Faced with these several imponderables, which could not be solved immediately, Admiral McDonald and I both believed that it was essential that we go forward, and build CVA 67 with conventional power, rather than to urge a further delay in the construction of this ship.

#### Nuclear Power in the Future Navy

**I** AM NOT SUGGESTING that our past positions with regard to nuclear power should necessarily be changed. I happen to believe that, *eventually*, our major combatant ships will be nuclear powered. What I am suggesting is that we need to do more hard work on top of the *very* hard work that has already been done.

We need to do additional research on the feasibility of reducing the costs of our nuclear power plants, large and small, as well as that of the nuclear fuel, or cores, for these plants.

Perhaps, even more importantly, we need to work diligently with our opposite numbers in the office of the Secretary of Defense to answer their remaining questions, to identify agreed facts and opinions and to



NAVY-MARINE team produces versatile fast-moving amphibious assault force.

translate those advantages, which your military experience has trained you to recognize, into terms which OSD civilian leadership can accept.

I have great confidence that the analytical techniques which have worked so well in resolving the other differences, and achieving the understandings on other aspects of the carrier weapons system, will produce a common approach in the future, between the Department of the Navy and the office of the Secretary of Defense, on the question of nuclear power.

#### Future Amphibious Capabilities

**I**N A TYPICAL SCENARIO of the '70s, after the carrier striking force has reduced the potential of the enemy air threat to manageable proportions, greatly improved amphibious forces will be capable of moving in to seize and consolidate the necessary land areas.

Early in the next decade our Navy will have achieved the capability of lifting and landing the assault echelons of more than one entire Division/Wing Team at the remarkable rate of 20 knots. The remainder will necessarily be lifted in older and slower shipping. However, before the mid-1970s, we will have programed the capability of nearly twice that number. Here is an area in which the Navy and the Marine Corps, and the Defense Department, are in full agreement. Here is an area in which we have the know-how to build the ships and aircraft we need.

#### Navy-Marine Corps Teamwork

**T**HE CHALLENGE to the Navy-Marine Corps team lies in the development of improved techniques for capitalizing on this great increase in strategic mobility. To keep pace with this improvement, along with parallel developments in weaponry, command and control systems, and tactical mobility means, priority attention should be given to the techniques involved in embarkation and loading, and in the conduct and control of the ship-to-shore movement.

By such across-the-board advances in our amphibious assault capability, we will be able to demonstrate the broad versatility and applicability of these forces, and thus enhance their deterrent factor.

I hardly need mention that the troops to be lifted at the rate of 20 knots will almost invariably consist of the fighting men of the United States Marine Corps, landing either in the conventional manner perfected over the past 30 years, or by vertical envelopment, a means first tested in the post-World War II era.

I have spent many hours being briefed on matters of concern to the Department of the Navy. I have been impressed by the extent to which the Marine Corps has its problems in hand.

The Marine Corps historically has demonstrated an unexcelled capability to remain ahead of its civilian management in discovering the solution to its problems. I expect to see this top performance continue.





ADM D. L. McDonald, CNO,  
visits CO of Hunley.

**I** TURN NOW TO TWO areas in which there is almost all challenge and, as yet, no adequate answer—AAW and ASW.

I mentioned the unlikely prospect that *Typhon* in its present concept would be the answer to the threat of the '70s. The three "Ts," (*Tartar*, *Terrier* and *Talos*) even with their current fixes, may be approaching marginal effectiveness by that decade. The F111B with its *Phoenix* Missile System should, by that time, have brought a substantial improvement in air-to-air defense.

But we do not have in sight, in surface ship weapons, an accompanying solution to the air and missile threat. This should not dishearten us. Rather it should stimulate us to more intensive effort and devotion of higher priority to the job.

The fact that our carrier forces have been found mandatory in the '70s carries with it a built-in urgency that we solve the air and missile threat to them, and to the other forces that will follow them.

Here again, in solving this problem, we must fight the constant battle to hold down costs, and to achieve simplicity of design, if we are to have sufficient ships to screen our wide-ranging forces. But the funds will be forthcoming when we clearly see the best line of approach to the solution.

#### Sub-Surface Sensors for ASW

**T**HE SECOND AREA of formidable and continuing challenge is in the field of ASW. Here is a sector in which the entire spectrum of naval tools has a part to play.

Although some excellent, promising new ASW systems are just entering the Fleet, our air, surface, and

fixed and mobile sub-surface sensors all need further improvement.

Of perhaps even greater importance is the need to tie together, more effectively, all that current and future sensors can do, through improved coordination, both tactical and strategic in nature.

This need for coordination of ASW systems, and for their improvement, implies that the closest form of management control over the entire ASW program is necessary. I have been pleased to find that the organization of the Navy has been improved in the direction of over-all ASW management. There is, however, a requirement for added emphasis and even better coordination and control in the future.

#### The Challenge of ASW

**A**BOVE AND BEYOND the question of management and improved ASW tools, there lies the broader matter of ASW philosophy. Much remains to be worked out in the years ahead.

How should we deal with the problem of resupply of the overseas area in which limited war is occurring?

Under what circumstances should we provide pre-stocking of supplies in critical areas?

How heavy should our emphasis on escort of convoys be?

How much should we think in terms of attrition of enemy submarines, in order to win the war at sea?

With improved ASW capabilities can we put more emphasis on killer submarines in barriers and hunter-killer carrier forces as the primary strategy, with less reliance on escort forces, or must we increase our escort capabilities?

#### Combat at Sea in the '70s

**I** HAVE THE VIEW that one of the more likely scenarios, in the '60s and '70s, is a war at sea, resulting from probing enemy aggression.

In such an event we should need, I think, to rely on ASW forces, across the spectrum.

Our SSNs and patrol aircraft squadrons would have to exact attrition from transiting submarines. Our hunter-killer forces would have to be used as the strategic forces of such a limited war, deployed in the open oceans against the weight of

the submarine threat which had made the transit successfully.

But I would also visualize a vital dual role for escorts—to protect and convoy our merchant shipping, and also to kill enemy submarines attracted to the convoys.

It is not my purpose to try to proclaim a doctrine or a dogma. I am trying to suggest that in addition to the known problems in the management and hardware fields, all naval personnel should look forward with relish to the challenge in the field of ASW strategy and tactics. Here is an aspect of seapower peculiarly adapted to the concept of usable power.

There is room for the greatest amount of initiative and creativity in the ASW field. It is a mission which the Navy is likely at any time to be called upon to execute.

We have much to do in the field of study and analysis—to satisfy ourselves of the proper balance for our ASW programs, and also to satisfy the Secretary of Defense, the Director of the Bureau of the Budget, the President and the Congress, all of whom have not only a legitimate, but a statutory interest in these matters, that we are right.

The size of the threat, and the maritime nature of the Atlantic Alliance dictate that the Navy be supported to the fullest in this field. But we have to find, and to prove, the intelligent balance in order to win support for our program.

As a matter of fact, it is reasonable to believe that, as the danger of escalation to the use of nuclear weapons in any war in Europe increases, this government will give increasing attention to requirements for a war at sea with a concomitant increase in the share of the defense budget going to these forces.

#### Structure of the Military Organization

**R**ECENTLY THERE HAVE been press reports indicating considerable interest in the significance of, and reasons for, a series of organizational changes in the command structure of the Defense Department. My own view of these is that we must consider them in the mainstream of the evolutionary change that has been taking place since World War II.

I do not believe that it is necessary for me to review for you the history of the creation of the Defense Department. Nor do I need recall the

fact that the Service Chiefs have been assigned a separate responsibility as members of the Joint Chiefs of Staff, where they are joined by a Chairman and by the Commandant of the Marine Corps, who participates when he feels that the subject is one of particular interest to the Marines.

In more recent years, joint commands have evolved which have required retooling, reemphasis, and reorganization, as political or military changes have made it wise to do so.

We all know, of course, that CINCSTRIKE was initially created for the purpose of integrating Air Force and Army forces, to provide joint training for their potential joint operations, anywhere in the world. This functional assignment has been criticized by some as a threat to the Navy, and especially to the Marine Corps. I have the view that it is rather a tribute to the extremely close integration achieved over the years by the Navy and the Marine Corps—and within the Marine Corps, of the Marine Divisions and the Marine Aircraft Wings.

I believe it seemed necessary to those in authority to create a system which would achieve a similar degree of close coordination and integration on the part of the other two services. It is my belief, further, that the Navy and Marine Corps will continue to lead the way in setting an example of close coordination.

The Navy and Marine Corps are now arranging to participate more closely in CINCSTRIKE's command organization, in order to improve our national readiness to employ the several Services with top performance in a crisis.

#### Navy's Blue Water Responsibilities

**R**ECENTLY, AS YOU KNOW, the President approved a recommendation of the Secretary of Defense that CINCSTRIKE assume several responsibilities for the Middle East, Africa and South Asian areas. This assignment caused even greater concern among many of you than resulted from the initial creation of CINCSTRIKE. I should like to speak to that concern.

First, although this assignment gave him certain responsibilities in these land areas, his only over-water responsibilities are for two restricted bodies of water—the Red Sea and the Persian Gulf. A naval command-

er, COMIDEASTFORCE, was assigned to CINCSTRIKE, together with three naval units which have been maintained in that area for a very long period of time.

*However, the entire ocean areas up to the shores of the continents and the subcontinents remain under the command of either CINCLANT or CINCPAC. The future responsibilities of these two blue water commanders, in the Indian Ocean area, are going to be challenging indeed.*

Second, the Commander in Chief has made his decision. Our duty is clear—to support the decision fully and to continue to demonstrate the versatility and flexibility of our sea power in the Indian Ocean areas of CINCPAC and CINCLANT and in support of CINCSTRIKE responsibilities in the adjacent areas.

#### The Indian Ocean Challenge

**T**ODAY, WE HAVE the challenge of determining whether it is feasible and possible to acquire base rights to support permanent or temporary deployment in that area. If it is possible, then we must learn what these facilities should be. We have the opportunity, and the associated problems, of establishing in conjunction with CINCSTRIKE and the State Department, a proper relationship between either a permanent or a temporary naval force in that area, and the countries adjacent.

There are evidences of a power vacuum in that section of the world. The mechanism in which the regional association and stability in this area may come about, based on the concept of mutual support, could well be through the stationing of a U. S. attack carrier task force and its supporting structure in the area.

I am keenly aware that the strengths and opportunities I have been discussing are of the sort to challenge high caliber personnel in the Navy and Marine Corps. I am mindful that to continue the high quality of these services—in order to continue to have the men of the type who have risen to the challenge in the past—requires continuing effort on the part of your Secretary of the Navy and your military leadership.

#### Military Pay and Housing

**S**O FAR, IN THIS report, I have not attempted to discuss one problem of major importance, which I



GEN W. M. Greene, Jr., Commandant USMC, reviews troops.

know is paramount in nearly everyone's mind—the subjects of pay and military housing. This was done by design, as I do not believe that justice can be done to the subjects, if treated as part of an over-all discussion. However, I do want you to know that I do not think, for one moment, that we can rest our oars on the recent pay increase.

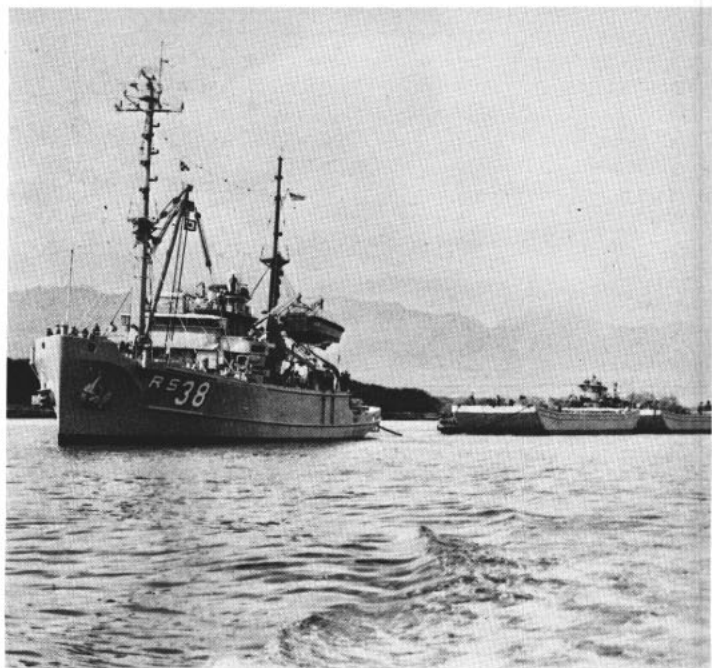
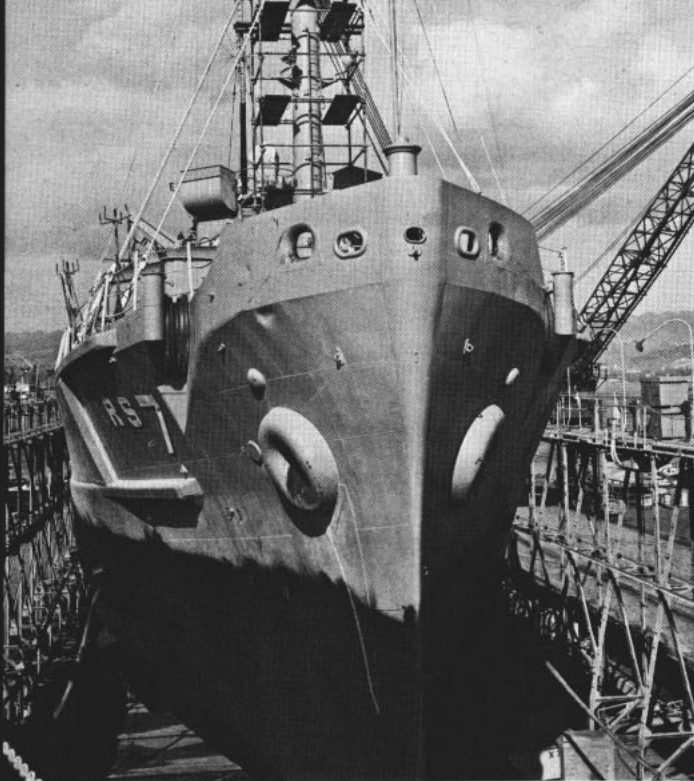
As a matter of fact, the President has approved the request of the Secretary of Defense that DOD be allowed to program a roughly three per cent increase in military pay in the fiscal year '65 budget as the first of a series of annual cost-of-living increases.

We must continue our efforts to ensure that Navy and Marine families are adequately housed, that they have proper medical attention, and that you have an equitable pay scale in comparison to other professions.

I intend to make it a major order of my business as Secretary of the Navy to see as many sailors and Marines, and the activities to which they are assigned, as I possibly can. I expect to make every effort to learn their hopes, and aspirations, and their problems in depth. When I have done so, I hope that I will be successful in translating these into feasible, intelligent, action programs.

It is also my intention to know, and know well, as many of your senior officers as possible. I am not just making a perfunctory statement when I tell you how deeply impressed I am with the caliber and dedication of those I have met thus far. Certainly there are no finer military statesmen, planners, and leaders in the world today than Admiral McDonald and General Greene.





THE SALVAGE ship USS Grapple (ARS 7) gets overhaul. (Rt.) USS Bolster (ARS 38) gets underway with barges in tow.



HARD HAT diver is helped into diving suit on board USS Deliver (ARS 23). (Below) Deliver heads to sea with string of four barges in tow.



## The Workhorse Fleet

THE AUXILIARY FLEET of workhorse ships has many peculiar breeds. One is the ARS, whose peculiarity, or specialty, is salvage.

Built during the early 1940s to meet the special needs of World War II, the salvage ship has, over the years, demonstrated a willingness to deviate from duties to which her name implies she should limit herself. More than a few Navymen call the ARS a tug (the salvage ship can reputedly tow the largest ships afloat); others refer to her as "salvage and rescue vessel," or merely "rescue ship."

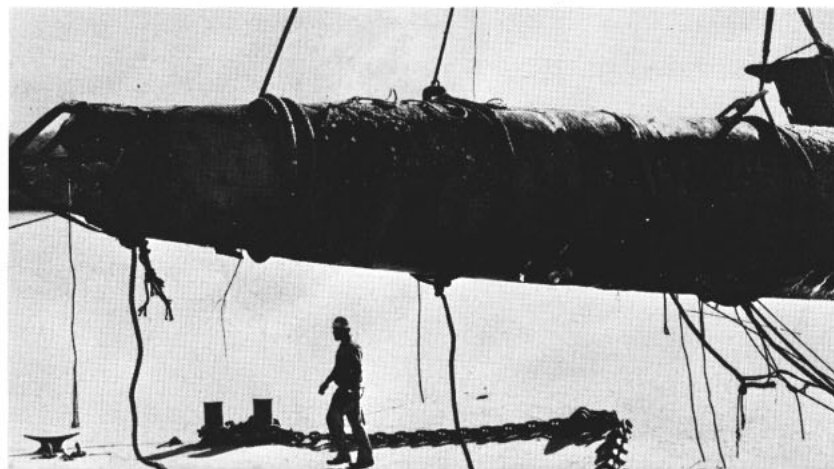
The typical *Escape* class ARS working today's Fleet was commissioned between 1942 and 1945. She is made of steel and is designed for

offshore work. Her cruising range at an economical speed is approximately 14,000 miles. She has diesel electric power that drives 2440 shaft horsepower, and can move along at 15-knot speeds. She's 214 feet in length, measures 41 feet across the beam, and has a displacement of 1970 tons.

Her firepower consists of two twin 40-mm and three twin 20-mm anti-aircraft guns. Her manpower is 85, which normally includes two officers and 21 enlisted men specially trained in salvage work.

And, of course, qualified divers are assigned to the ARS, which is equipped and ready to probe the depths for, then cut up, move, or refloat, virtually any sunken object.

MIDGET submarine is raised near Pearl Harbor by USS Current (ARS 22).



# LETTERS TO THE EDITOR

## UDT Insignia?

SIR: I have heard that UDT men are authorized a special breast insignia as are submariners and aviators. However, I have been unable to find a uniform shop that knows anything about it.

Is there such an insignia? If so, where can I buy one?—C. C. C., ENS, USNR.

• *The uniform shops were unable to sell you a UDT breast insignia because there isn't any.*

The Permanent Naval Uniform Board has considered proposals to authorize special uniform insignia for UDT, EOD and divers but has voted the proposals down each time primarily because of the Board's policy to limit such insignia to career specialists.

As you undoubtedly know, UDT enlisted men can wear certain diver's sleeve marks. All are eligible to wear their unit identification marks.—Ed.

## Sure, Chief, Fly that Pennant

SIR: I volunteered for service during World War II and served again during the Korean conflict. In both cases I was honorably discharged as a Chief Storekeeper.

As with most men who served with me, I am and always will be All Navy. I now plan to retire from my civilian job and am in the process of building a home on an island. I would like to have a flagpole in front of the house with a crossarm from which I want to fly a pennant.

I will have to design the pennant and am thinking of a chief's cap device in white on a blue field or perhaps a chief's rating badge in the same colors.

So far as I know there is no reason I cannot fly this pennant from the crossarm of my flagpole. Do you know of any?—S. W. B.

• *You won't get into trouble with the Navy Department because it has neither authority nor inclination to regulate the use of flags and pennants except within the Navy.*

So far as we know, there is no other authority that would object to your pennant. Fly it in good health.—Ed.

## What's a Spediat?

SIR: What exactly is SPEDIAT, and is it still used?

I say that it is not. SPEDIAT isn't mentioned in any publication today that I know of, including NavPers 15642, *Instructions for the Naval Manpower Information System, Part I (Active)*.

I think SPEDIAT went out when NavPers 15642 was revised in 1961.

This section is open to unofficial communications from within the naval service on matters of general interest. However, it is not intended to conflict in any way with Navy Regulations regarding the forwarding of official mail through channels, nor is it to substitute for the policy of obtaining information from local commands in all possible instances. Do not send postage or return envelopes. Sign full name and address. Address letter to Editor, ALL HANDS, Room 1809, Bureau of Naval Personnel, Navy Dept., Washington 25, D. C.

Can you enlighten us?—L. B. S., YN1.

• *SPEDIAT was an abbreviation for SPECIAL DIARY Transcript. It was a form of message reporting that was used for supplementary diary reporting. The reports recorded sailing entries, plus information on personnel received or transferred at sea. But, as it was supplementary reporting, the SPEDIAT did not do away with the requirement for normal diary entries of the same information.*

You are right when you say that the term SPEDIAT was discontinued with the 1961 revision of NavPers 15642, Part I (Active). However, Art. 5.47 of that publication still provides for message reporting of this information.—Ed.

**BOW VIEW** — The guided missile light cruiser USS *Oklahoma City* (CLG 5) slips through calm seas.



## Light Sought on BuPers Manual

SIR: While we were preparing for the annual verification of Officer Service Records, we noticed several items in the *BuPers Manual* which, to us, seemed to need clarification. Perhaps some of them are discrepancies.

We would appreciate your opinion of the following items:

• Change No. 8 to the *BuPers Manual* makes it unnecessary to include the Annual Qualifications Questionnaire—Active Duty Officers (NavPers 549) in the service record. Since this form is no longer in effect, can we destroy old copies?

• Article B2207 of the manual requires copies in the service record of both NavPers 765 (Officer History Card) and NavPers 765A (Officer Preference and History Supplement). Since the institution of NavPers 2774, is NavPers 765A still in effect?

• Is DD Form 398 (Personal History Statement) required of all officers or only those who need security clearances or augmentation?

• What does the term "date commissioned" mean as used in NavPers 979 (Officer's Biography Sheet) and other forms. What meaning does it have to official records?

We recognize that date of rank of a man's first appointment to officer grade and his commission date may differ, and that both may differ from his date of acceptance.—J. E. K., LCDR, USN.

• *Here are the answers to your questions in the order you asked them:*

*First—You may destroy copies of Form 549 if you wish, since their retention is no longer required. However, if you keep them, you may find them useful for reference.*

*Second—No. NavPers 765A is not in effect, and reference to it will be deleted from Article B-2207 in the next revision of the "BuPers Manual."*

*Third—A copy of DD 398 (Statement of Personal History) should be on file in each officer's service record. A worksheet copy is adequate but it should be complete.*

*Fourth—The term "date commissioned" is the date an officer's commission was signed by the Secretary of the Navy for the President. It is simply for record purposes and has no significance in determining date of rank and entitlement to pay. The date which counts is the date the officer's appointment is effective—which, unless stated otherwise, is the date the officer accepts his commission. Does this clear things up?—Ed.*





IN CALM SEAS — USS Pine Island (AV 12) heads for Galapagos Islands to provide training in advance based tender and seaplane operations.

#### What's With Telemen and RMs?

SIR: I have wondered why the teleman rating was discontinued even though teletypes have come in for greater and greater use. Can you shed any light?

Maybe you can also confirm or deny a rumor that is going around that the RM rating will be set up in specialized fields such as the AT and ET ratings.—L. C. M., RM2, USN.

• Since you are an RM, we assume you know that the teleman and radioman ratings were combined. Many of the skills and much of the knowledge required of TEs were basic and were also required of RMs. Both the TE and RM ratings were so specialized before they were combined, that advancement from CPO to Warrant and LDO was extremely difficult.

As for the rumor that the RM rating will be divided into special fields—this was proposed and under consideration, but the Permanent Board for Review of the Enlisted Rating Structure concluded the objectives of the proposal could be achieved through administrative action and did not recommend a split in the rating.

As things now stand, it looks as though the RM rating will remain just as it is.—ED.

#### Straight Shooters, Those Marionmen

SIR: My ordnance division in USS Francis Marion (APA 249) is the best in the Navy. We have won the gunnery "E" on all mounts and directors and before I transfer to the Fleet Reserve, I will see every mount and director with a hashmark.

But there is one way in which you may be able to help me.

My gun, director and radar crews

have had me looking to see if they can wear the gunnery "E" on their uniforms. I've spent hours looking, the PNs and YNs have looked, but we can't find out anything about it. Can you help?—E. Q. C., GMG1, USN.

• From the information in your letter it appears that your crews are qualified to wear the Navy "E." Here's what "Uniform Regulations" says: "Wearing of the Navy 'E' by personnel assigned to ships, shipboard stations or aircraft squadrons designated to receive proficiency awards may be authorized in accordance with instructions issued by the Chief of Naval Operations."

Usually type commanders have the final say on who can wear the "E". We suggest that you contact your division officer concerning the matter.—ED.



A NEW TOP — The plastic sail on USS Gudgeon (SS 567) makes less noise and requires less maintenance than its aluminum predecessor.

#### Welder Looking for a Good Hot Spot

SIR: Last year I completed 20 weeks of welding school and was given an NEC 4945 (advanced welding). Since then I have heard that the Bureau of Naval Personnel has assumed the responsibility of assigning welders.

I have been in this ship for some time now and haven't touched a welding stinger except for practice. It seems that 20 weeks is a lot of time for me to spend learning something that I don't use—to say nothing of the expense incurred by the Navy in sending me to school.

Can I be reassigned to a ship that has some use for my skill?—K. M., SFM2, USN.

• It does look as if you have been misassigned and, at the risk of using an old saw, we'll repeat that such things do sometimes happen in an organization as big as the Navy.

The Bureau of Naval Personnel does not assign welders, as you had heard. In your case, EPDOPAC would make the assignment, and your letter has been forwarded to see whether or not you can be reassigned to better advantage to yourself and the Navy.

In the meantime, check your service record to see whether or not your correct NEC is listed. If it is not, have the error corrected. This could be the root of your trouble.—ED.

#### Trailer Allowance—Again

SIR: Would you kindly discuss the mileage allowance the Navy provides for moving house trailers upon permanent change of station? As I understand it, the government allows 36 cents per mile—and no more. Other trailer owners I've talked with insist the Navy pays all the extra expenses involved in moving a trailer from station, providing no dislocation allowance is paid.—L. J. B., BT1.



THE ATLANTIC Fleet's USS Canberra (CAG 2) is the only U. S. Navy cruiser with the name of a foreign capital.

• Generally speaking, the government will pay as much as 36 cents per mile for transportation of your house trailer only if it's moved by a commercial transporter. If you haul the trailer yourself, the maximum allowance is 11 cents per mile. Here's how the laws concerning trailer allowances operate, as described in Chapters 10 of "Joint Travel Regulations" and "Navy Travel Instructions":

At your request, the government will make arrangements for moving your trailer by commercial means between two authorized points, paying all costs related to pickup, transportation, and delivery at destination, up to the maximum of 36 cents per mile. But there's a hitch: You must agree to pay any extra expenses, such as storage charges or special handling costs. And, when you elect a trailer allowance, you are not entitled to a dislocation allowance or to transportation of baggage and household goods within the U. S., except when permanent change of station orders call for temporary duty en route.

In unusual cases, such as when no transportation officer is available, you may be permitted to make your own arrangements with a commercial transporter. Any claim for reimbursement must be substantiated with two copies of evidence of transportation, such as a bill, receipt, copy of bill of lading, etc. Such claims must be settled with the Navy Finance Center, Washington, D. C.—Ed.

#### Oxygen Doesn't Go at 30 Feet Below

SIR: The October 1963 issue of ALL HANDS presents an excellent article on training tank qualifications. However, the article states that "two instructors

with oxygen tanks strapped on their backs are at the 50-foot level . . ."

A well-trained Navy diver will tell you that pure oxygen should never be used on a dive below 30 feet. The highly toxic qualities of oxygen will, below that depth on a working dive, cause severe spasms and convulsions in short order.

The reference to "oxygen tanks" is a common error, but one which could get a novice diver in trouble. The proper term should be "compressed air tanks." And all divers should be made aware of the vast difference between oxygen and compressed air, with regard to diving. C. N. Seger, LTJG, USNR.

• You are correct that the reference to "oxygen tanks" is misleading and might be misinterpreted. The proper term should have been "air cylinders," denoting that air is being used.

The "U. S. Navy Diving Manual"

#### Canberra Came from Pittsburgh

SIR: I would like to know if USS Canberra (CAG 2) was USS Pittsburgh before she was converted to a guided missile cruiser, or was she originally USS Canberra (CA 70)? Could you tell me?—M. H. K., SN, USN.

• USS Canberra (CAG 2) was completely converted from Canberra (CA 70) in May 1956. However, when CA 70 was originally laid down, on 3 Sep 1941, she was named Pittsburgh. Before completion she was renamed Canberra in honor of the Australian cruiser sunk in the Battle of Savo Island early in World War II.—Ed.

(NavShips 250-538) gives us the official jargon: "The SCUBA gas supply consists of one or more high-pressure cylinders. They are usually steel, but may be aluminum alloy or special material. Open-circuit SCUBA cylinders are frequently called flasks or bottles."—Ed.

#### Fleet Reservists in Naval Reserve?

SIR: A question frequently arises in my office which is never completely resolved because of individual interpretations of directives.

Here is a hypothetical situation to illustrate the problem. Suppose a CPO with 20 years of service goes into the Fleet Reserve. Can this CPO join a local Reserve unit, attend its meetings and make summer cruises with pay?

If he can do these things, can he receive his retainer pay in addition to his Naval Reserve pay, advance to E-8 and recompute his retainer pay?

I hope you can give me a clear-cut answer.—R. T. W., SOCS, USN.

• Well now, Chief. This would be like having your cake and eating it, too.

We suppose your hypothetical CPO could participate unofficially in a Naval Reserve training program, and his help would probably be a great asset to a Reserve unit. If he did so, however, it would be on a volunteer basis without orders, without pay and without any other credits.

When a man is in the Fleet Reserve, he is in a separate category from the Naval Reserve. Fleet Reservists are considered experienced personnel available for recall. As such, they are not authorized to join Naval Reserve units as bonafide members or perform active duty for training or advancement.—Ed.



## Ship Reunions

News of reunions of ships and organizations will be carried in this column from time to time. In planning a reunion, best results will be obtained by notifying the Editor, **ALL HANDS** Magazine, Room 1809, Bureau of Naval Personnel, Navy Department, Washington 25, D. C., four months in advance.

- **uss Elmore** (APA 42) — A reunion is scheduled for 1 August at the Holiday Inn, Salisbury, Md. For further details, write to Donald C. Mesick, 102 Franklin St., Snow Hill, Md.

- **uss Holt** (DE 706) — A reunion for all hands is scheduled 19-21 June, at the Royal Orleans Hotel, New Orleans, La. Write to Bill Morgan, Frito-Lay, Inc., Exchange Bank Bldg., Dallas 35, Tex.

- **uss North Carolina** (BB 55) — This year's reunion is scheduled for 25-27 June, on board the ship at Wilmington, N. C. For details, write to Charles Paty, Jr., 2013 Midwood Pl., Charlotte 5, N. C.

- **uss South Dakota Veterans' Association of World War I** — The 44th annual reunion of the World War I crew will be held 4 April at the Mallory Hotel, Portland, Ore. For information, write to Roland A. Hall, 1724 S. E.

Grand Ave., Portland, Ore., 97214.

- **Carrier Qualifications Training Unit (CQTU)**, Glenview, Ill. — A reunion is scheduled for June. For details, write to E. F. Johnson, 253 S. Highland Ave., Aurora, Ill., 60506.

- **Torpedo Squadron 86** — A reunion is planned for 21-23 August, at Indianapolis, Ind. For more information, write to Laddie Novak, 3737 W. 81st St., Chicago, Ill., 60652.

- **uss John C. Butler** (DE 339) — Shipmates who served during World War II who are interested in a 1966 reunion should write to F. F. (Jeff) Conley, 640-641 Davidson Bldg., Sioux City, Iowa, 51101.

- **uss Gantner** (APD 42) — A reunion is being planned for the summer. For further particulars, write to Ralph C. Swanson, 2402 Lauren Dr., S. W., Cedar Rapids, Iowa.

- **uss New Orleans** (CA 32) — All who served on board during World War II who are interested in holding a reunion with time and place to be decided may write to Joe M. Zak, 416 E. 255th St., Euclid 32, Ohio.

- **uss Sanders** (DE 40) — All who

served on board during World War II who are interested in holding a reunion may write to John J. Pepa, Jr., 189 Alexander's Pike, P. O. Box 145, Marblehead, Ohio, 43444.

- **uss Telfair** (APA 210) — All who served on board from January 1953 to January 1956 who are interested in holding a reunion in the midwest this summer may write to D. J. Hayes, Jr., 8 Pasfield Park Pl., Springfield, Ill.

- **USS Abbott** (DD 629) — A reunion is scheduled for next August in Philadelphia, Pa. For details write to John W. Gish, 801 East 3rd St., Kewanee, Ill.

- **USS Wichita** (CA 45) — A reunion will be held in Norfolk, Va., the end of June. For information, write to J. A. Glass, 111 Dupre Ave., Norfolk, Va.

- **1108 USNR Officers** — All former 1108 Naval Reserve officers who maintain Ready Reserve status who are interested in holding a reunion in New York City during the World's Fair are invited to write to John F. Roman, 91-28 121st St., Richmond Hill, N. Y., 11418.

## Those Gold Stripes Again

SIR: This may be old stuff to you, but we'd like your opinion on the qualifications for wearing gold rating badges. Our interpretation is that you are entitled to gold only after the first consecutive 12 years of service with good conduct. Others say gold stripes can be worn after any continuous 12 years with good conduct. What is correct?—First Class Crew's Mess, **uss Investigator** (AGR 9).

- In accordance with "Uniform Regulations," Article 0654, an enlisted person must maintain for a continuous period of 12 years' active duty the

requirements necessary for the award of the Navy Good Conduct Medal. This may not necessarily be the first consecutive 12 years of a person's enlisted service. The 12-year period could, for instance, start during any enlistment depending on the beginning of the eligibility period for the Good Conduct Medal.

The principal criterion is that once a person has served for a period of 12 years of continuous active duty (full time duty) in the Navy or Naval Reserve and has fulfilled the requirements necessary for successive awards of the Navy Good Conduct Medal during this time

he is entitled to wear gold service stripes. Once this entitlement is acquired that right continues throughout the duration of an enlisted person's service unless he fails to qualify for a Navy Good Conduct Medal, in which case the right to wear gold stripes is terminated; also if the enlisted person is convicted by court-martial and the conviction has become final within the meaning of the Uniform Code of Military Justice, the right to wear gold stripes is terminated. In such a case, he goes back to red stripes.—ED.

## Small Cars and Big Men

SIR: Uniform Regulations spell out, generally, where and how the uniform should be worn, but one point does not seem clear. Cars keep getting smaller and smaller until I can no longer wear my hat while driving—it keeps hitting the roof.

Under the circumstances is it necessary for me to wear a hat while in my car?—J. R., YN2, USN.

- If, because of your height, your hat interferes with the safe operation of your car, it's not necessary to wear it all the time.

It is not practical for "U. S. Navy Uniform Regulations" to list all the occasions when it could be considered appropriate to remove your hat. However, it seems only sensible to remove the hat in circumstances recognized by custom.

Nevertheless, the hat must always be worn, in automobiles or other places,



THE HULL CLASS destroyer **USS Parsons** (DD 949), underway in Pacific, was one of first U. S. warships with more firepower aft than forward.

under circumstances where personnel are expected to be in the complete uniform of the day; that is, on station, in town, in military vehicles, on duty, in parades, and similar circumstances.

As we said before, the rules concerning the uniform in other than a strictly military situation, are generally governed by custom so, in borderline cases, use your best judgment. There should be no objection, for example, if you removed your hat while driving through the California-Sonora desert in 100-degree heat.

On the other hand, don't expect a sympathetic reaction if you explain to the shore patrol that your sleeves are rolled up because it's hot. For the same reason, it would be well, regardless of the hot weather, to wear your hat when passing through the gate of a military installation.—ED.

### Color Perception for LDOs

SIR: While browsing through the December 1962 ALL HANDS recently, I noticed the article on color blindness. Since I am classified as having defective color perception (and know of several shipmates with the same defect), would you please answer the following questions:

(1) Will the Bureau of Medicine and Surgery or the examining board grant a waiver for defective color perception for any of the LDO(T) program categories?

(2) If the answer to the above is yes, then must one request such a waiver at the time of application for the program?

(3) Can a person with only mild color perception defects have the degree of color blindness entered in his health record, and would it be to his advantage to do so?

(4) Would you please discuss the reliability of the pseudoisochromatic plate test system of determining color percep-

tion (employing numbers appearing on a vari-colored background).—C. L. H., CT1, USN.

• We will answer your questions in numerical order:

(1) Waivers of physical standards are not granted by the Bureau of Medicine and Surgery, but rather by the Chief of Naval Personnel upon the recommendation of BuMed. Waivers are recommended for defective color perception by BuMed for all categories of the LDO program except deck, operations and ordnance.

(2) Individual requests for waiver are not required. Waivers will be recom-

mended in appropriate cases upon Bureau review of application.

(3) Current regulations require that the results of color perception tests be recorded in the health record. The determination of degree of "color blindness" other than that provided by standard color perception tests would, in general, serve no useful purpose.

(4) The pseudoisochromatic plate test is considered to be a highly reliable color perception test. However, cases of questionable color perception are resolved by testing with the Farnsworth Lantern in accordance with "MANMED" article 15-11(6).—ED.



**FUEL RUNNER**—The oiler USS Kawishiwi (AO 146), operating out of Pearl Harbor, Hawaii, gets underway for an assignment in the fleet.

## WHEREVER YOU ARE

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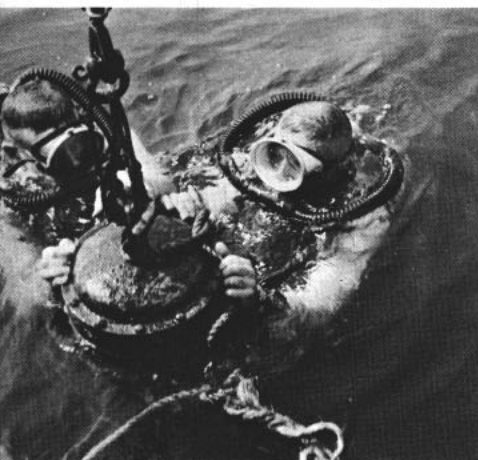
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**CAREFUL NOW**—Men from explosive ordnance disposal team remove WW II 'souvenir' from Pacific port.

### *That October Blaze Just Won't Die*

SIR: In the October 1963 issue (page 30) you answered a letter about fire-fighting procedures where nuclear weapons are involved. Let's take another look at some of that information.

You said that firefighting and weapon cooling should not be attempted if the weapon is engulfed in flames. This is seriously misleading when applied to shipboard procedures. You refer to OPNAV Inst. 8110.16B, which is an unclassified AEC technical information bulletin about controlling accidents which involve atomic weapons. It seems to me that this bulletin was written without consideration of shipboard situations since it advises, in addition to the above, the withdrawal of all personnel to 1500 feet if the weapon is engulfed in flames.

You must admit this suggestion has certain practical limitations, as USS *Enterprise* (CVAN 65), the largest ship in the U. S. Navy, is something around 1100 feet long, I believe. Somebody is going to get his feet wet.

I have been instructed that the most important action that can be taken in this type of accident — in addition to fighting the fire—is to cool the weapon immediately with high velocity fog or other types of water application. It is my understanding that foam should not be used if water is available because it creates a blanket which increases the "cooking" effect.—L. K. W., LCDR, USN.

• *You're so right about the 1500-foot bit. As we read your rather kindly note (under the circumstances), our collective faces approached a fine red glow which too, could have used a touch of high velocity fog or other types of water application. It must have really been one of those days when we let that one go through.*

*As to our alibi:*

*Our information, based on OPNAV Inst. 8110.16B, was correct as far as it*

*went, but we perhaps should have gone to greater depth in qualifying our statement.*

*The instruction certainly does appear to omit consideration of shipboard conditions when it advises the withdrawal of personnel to 1500 feet. Obviously this would be impossible aboard ship, unless the ship were abandoned. Certainly, this pertains only to situations on a shore station.*

*However, the experts tell us that when the instruction begins talking about "temperature and time," it does apply to shipboard situations.*

*If the weapon is engulfed in flames for less than three minutes, attempt should be made to cool the weapon with water fog. Three minutes is the estimated time it would take for a weapon engulfed in flames to reach a temperature of 300 degrees. This temperature is considered critical for the safety of the high explosive component of the weapon.*

*If the weapon is not engulfed in flames but in the proximity of the fire for less than 15 minutes, attempt should be made to keep the weapon cool by spraying it with water fog or insulating it with foam.*

*This is the procedure taught at Naval Damage Control Center, Philadelphia, and Damage Control School, Treasure Island.*

*Type commanders' implementing instructions usually provide more detailed information as to what actions to take in varying circumstances.—Ed.*

### **Fire-Fighting Pointers**

SIR: Last October, in the ALL HANDS letters section, you discussed certain fire-fighting procedures to follow when nuclear weapons are involved.

I believe you failed to mention some extremely important points.

You said that no attempt should be made to cool a nuclear weapon that's engulfed in flames. In other words, leave it alone.

In cases where the weapon is not in the fire, you added, the foam used to extinguish fuel flames may be spread over the weapon to protect it from radiated heat and from flames. Again, in other words, weapons in the vicinity of a fire, if still cool, may be kept cool by applying foam or water fog.

I have studied the pertinent directive on the subject (OpNav Inst. 8110.16B), which primarily points toward incidents that might occur on a shore station.

This directive does state, as you say, that no attempt should be made to fight fires when the nuclear weapon is engulfed in flames.

It further states that all personnel should remain at least 1500 feet away. This point presents a problem.

Shipboard personnel responsible for controlling a fire around a nuclear weapon engulfed in flames or exposed

to radiant heat cannot retire to a safe 1500-foot distance without abandoning ship. Let's face it. Shipboard fires must be fought and kept under control.

With this in mind, a study of shipboard fire-fighting practices when nuclear weapons are involved was made by the fire-fighting department of the Damage Control School, Treasure Island, Calif., with the cooperation and assistance of the Nuclear Weapons School at North Island (San Diego).

We came up with certain ground rules to follow, and some information that may surprise a lot of Navy men.

• The principal danger of a nuclear weapon fire is from the high explosive components, not the radioactive parts. Danger of a nuclear explosion is so remote as to be considered not a primary hazard.

• It takes approximately three minutes for a nuclear weapon engulfed in flames to reach the danger temperature of 300° F. If high velocity water fog can be applied within this time limitation, the internal temperature of the weapon will drop sharply and will remain below the danger point, even though the weapon remains in flames. (We prove this almost every week at the conclusion of our five-day general shipboard fire-fighting course at T.I.)

• While the high velocity water fog is keeping the nuclear weapon cool, the fire may be fought with mechanical foam, making sure the foam is kept off the weapon. (Foam would become a baked-on layer of insulating material. The heat in the weapon's interior would be retained.)

• If the weapon is exposed to radiant heat, but is not engulfed in flames, a 15-minute time limitation should be observed. This is the approximate time it takes for the weapon to heat to the danger point of 300° F. If cooling fog can be applied within this time limit, danger of possible explosion will be minimized.

• Only if the weapon is not hot may foam be applied to act as an insulating blanket.

• Use water fog. Never hit the weapon with a solid stream. Explosive components that have been exposed to heat or shock or both are dangerous. The impact of a solid stream of water could result in an explosion.

Would you kindly inform your readers of these most important points? And, would you pass the following word? Lesson plans concerning shipboard fire-fighting practices on nuclear weapon fires are available upon official request from the U. S. Naval School, Damage Control, Treasure Island, San Francisco, Calif. 94130.—LCDR L. H. Turpin, USN, O-in-C, Fire-Fighting Department.

• *You just passed the word for us, Mr. Turpin. Thanks.—Ed.*



**FOAM ON THE PLANE** — Rescue crew rushes in as truck crew spreads foam. *Below: Simulated crash starts.*

## Fire and Rescue

**A**T NAS ROOSEVELT ROADS there is a group of men who risk their lives daily by walking into raging 1000-degree fires.

They are the 42 men of the aviation crash crew who train continually in the art of extinguishing aircraft fires and rescuing the occupants of aircraft in event of an aviation accident. There have been no accidents involving aircraft on the station in more than three years, even though there are more than 50,000 takeoffs or landings annually.

Walking into the fire is only part of the crash crew's job. Each man must be able to perform every phase of the operation, which may include anything from manning the pumps on the trucks to rescuing the pilot or crew.

The men are taught the particular characteristics of every type of aircraft: Where the pilots and crew should be, where the fuel tanks are located, where the escape hatches are, and in the event of an unexpected crash, where to rip open the craft to save the men inside.

Two aircraft mockups are used as training aids. The dummy planes have wings and a body and a cockpit where an unconscious pilot (usually a sand-filled oil drum) awaits rescue. One hundred and fifty gallons of aviation gas are poured on and around the plane and ignited.

One of the crash crew trucks rushes to the crash. Before the truck screeches to a halt, its two turret

pumps on the top of the truck are spewing out a torrent of fire-smothering foam. The foam, composed of fish scales, cattle horns and hooves and soya beans, spreads across the surface of the fire shutting off the oxygen. At the same time two men clad in aluminumized fire-resistant suits enter the flames to the cockpit to save the pilot. One places a ladder against the plane and the other climbs up and pulls the pilot out.

Every man on the crash crew, regardless of his size, has to be able to pull a person from a plane. In addition to practicing the rescue of the "oil drum pilot" from the burning mockup, the team members practice pulling live pilots, playing dead, from their own planes.

The smallest difficulty in an aircraft is cause for the crash crew to go on alert and rush to the scene



when the aircraft lands. In the words of the leading man in the crew, Edward Troutt, ABC, USN, "It's worth going out on 500 alerts for drill when there's nothing wrong, just to know we'll be ready for a real emergency."

—Bill Missett, JO2, USNR.

**FIRE AWEIGH** — After the rescue the remainder of the blaze is extinguished.





# Reorganization Roundup

**N**OBODY NEED BE TOLD that today's Navy is subject to demands which would have amazed almost everyone only 25 years ago, or that these unusual demands, placed on the Navy's operational leaders, later sift down to their supporting echelons.

The peacetime Navy of today has been affected by profound changes in weaponry, strategy and global commitments which influence every facet of the Department and its operating forces.

It was these demands and problems created by change that prompted the Secretary of the Navy, in March 1962, to appoint his administrative assistant, Mr. John H. Dillon, to act as chairman of a committee to initiate a comprehensive review and appraisal of the Department of the Navy.

Here is a summary of the recommendations of the multi-volume Dillon report which are now taking form to give the Navy its first major organizational overhaul in many a year.

**T**HE SECRETARY OF THE NAVY, as most Navymen know, has two principal military officials who report directly to him—the Chief of Naval Operations (CNO) and the Commandant of the Marine Corps (CMC).

The Chief of Naval Operations is responsible for planning; for determining the needs of the Fleet for ships, aircraft, weapons and personnel; and for general programming of resources to fill these needs.

The Commandant of the Marine Corps performs a similar planning function for the Marine Corps.

In performing these functions, both CNO and CMC determine and express the needs of the operating forces who are the *users* of the Navy.

Also, directly under the Secretary, are the six bureaus (Weapons, Ships, Supplies and Accounts, Yards and Docks, Personnel, and Medicine and Surgery) which are the *producers*—either of material or manpower—for the operating forces.

The Navy has a name for this division of responsibility, under the Secretary, of *user* and *producer* functions. It is commonly referred to as the Navy's *bilinear system of organization*.

The Dillon Committee concluded that this basic bilinear system of organization had served the Navy well and should not only be retained but should be strengthened.

It also believed that the bilinear organization could be operated even more effectively, efficiently and economically. Several structural changes were recommended by the Dillon Committee. One was exceedingly large in scope and is beginning operations. It is the Naval Material Support Establishment, discussed below.

Briefly, the Naval Material Support Establishment, under the Chief of Naval Material, will supervise the work of providing material support needs as determined by the CNO or CMC.

The Secretary of the Navy will have in the Chief of Naval Material a single executive responsible for executing the programmed material support efforts of the Department, enabling the Chief of Naval Operations and the Commandant of the Marine Corps to con-

centrate on Fleet operations, over-all planning, and current and future supporting requirements.

## **The Fleet Activities Command**

Another of the Committee's major proposals involves the administration of Navy field activities. A number of problems uncovered during the review concerned the relationships between shore activities and the Fleet. The Dillon Committee proposed the establishment of a Fleet Activities Command as a remedy.

On 1 Jul 1962, the Navy had 285 major and several hundred minor shore activities located around the world. Their management control was divided among 10 bureaus and offices of the Navy Department.

Military command flowed from the Chief of Naval Operations through the various District Commandants.

Technical direction of specialized functions stemmed from departmental components charged with responsibility for such functions.

To strengthen the channels of supervision and improve efficiency, the Dillon Committee recommended that a separate Fleet Activities Command be established, for direct Fleet support shore activities, under the Chief of Naval Operations, with one officer to head it.

The purpose of the Fleet Activities Command will be to insure that Fleet requirements are adequately supported by its shore installations.

The new organization will be a field activity, but it may maintain a few liaison personnel in OPNAV. The Commander will be equal in stature to a Deputy Chief of Naval Operations.

If FAC is implemented according to the committee's recommendations, the facilities assigned to the Fleet Activities Command would be organized into about 27 complexes to be called Naval Operating Bases (NOBs). The direct support activities would become departments or divisions under the Operating Base Commander of each NOB and would be completely under his control.

Each NOB commander would provide a focal point and act as the Operating Forces Representative in identifying the requirements of the forces afloat for support provided by tenant activities.

In addition, an NOB commander would exercise military administration over tenant activities which remain under the command and supervision of a bureau or office.

He would also provide community facilities, common services and other support in accordance with host-tenant agreements.

The NOB commander would also be the executive in charge of such functions as facilities planning, real property utilization and similar functions of a community nature.

Formal communications would be established between commanders in the operating Fleet and the Fleet Activities Command headquarters to insure Fleet participation in the budget preparation and review processes at the highest level. Fleet commanders would also have a hand in formulating workload requirements for executing their assigned missions.

A representative from each type command or force command would be assigned to each NOB complex to

speak for the Fleet and advise the Operating Base Commander of Fleet needs. This would produce a balance between the Fleet workload and resources needed to accomplish it, and provide adequate programing from the lowest to the highest level.

These organizational changes should remove Fleet support from its status as a virtual byproduct and give meaning to the slogan "*Our Purpose—to serve the Fleet.*"

Another important recommendation concerns the maintenance of facilities at naval shore activities.

Heretofore, responsibility for facilities maintenance and its funding has been divided on a bureau and office basis. To provide a central control or directing agency, the Dillon Committee recommended that the Chief of the Bureau of Yards and Docks be designated as the single executive responsible for facilities maintenance of grounds and buildings and operation of utilities at naval shore installations (except those of the Marine Corps and "Industrially Funded" activities).

Commanding officers of the activities concerned will actively participate in formulating the budget, either with BuDocks or through its regional office. Funds for

these activities will be administered in the same way.

Shore activities which fund their maintenance from the Navy Industrial Fund System will continue to do so. BuDocks, however, will still exercise technical direction over maintenance of these activities.

#### Planning and Programming

In the area of planning and programming, two new offices will be established:

The *Navy Plans and Programs Office* in the Office of the Chief of Naval Operations will have authority to supervise and coordinate the Navy program planning effort.

A *Program Appraisal Office* will also be established as a staff office to assist the Secretary of the Navy. This will provide the secretariat with an independent and improved capability to appraise progress against approved programs as well as to analyze proposed programs.

ADM David L. McDonald, USN, the Chief of Naval Operations assigned the Assistant Vice Chief of Naval Operations, RADM Roy Benson, the responsibility for coordinating the implementation of all recommendations assigned to CNO for action.

## Introducing—

# The Naval Material Support Establishment

**T**IME PRODUCES CHANGE, and change—properly channeled—produces progress. A Navyman on the job sees it in his improved capabilities and he sees it in the Navy. To pave the way for such progress, major organizational changes are often required to provide the Navy's management with the flexibility and capacity necessary to maintain today's pace.

In the 25 years which have elapsed since World War II began, the techniques of warfare have changed radically. In March of 1962, once again the sea service took stock of its organizational setup, and the Secretary of the Navy appointed a committee to do the job. Its task: to appraise the effectiveness and economy of the Navy's management processes and structure.

The committee came forth with 223 recommendations which it believed should be made effective as soon as possible. When they have been implemented, the proposals will affect almost every facet of the Navy. One of the most far-reaching of the proposals has been implemented. It calls for the institution of the Naval Material Support Establishment.

One out of every six men in the Navy will work for NMSE. Its influence will be felt by the men in the Fleet and, indeed, by the nation—for when the Navy steams to the trouble spots of the world, it will be there fustest with the mostest.

SecNav's General Order Number Five established NMSE in July 1963. Later last year came the announcement that the Chief of Naval Material would "assume supervision and command" of the Navy's material Bureaus of Naval Weapons, Ships, Supplies and Accounts and Yards and Docks.

An order this far-reaching is pretty bone rattling. It may have led some to suspect that something was wrong with the Navy's old organization to warrant such a shakeup. Nothing, however, could be further from the truth.

**T**HE CHANGE is prompted by evolution, not revolution. Nothing is being destroyed. The changes are simply designed to make a good system even better.

The Navy operates on land, on and under the sea, and in the air—and Navy men have even been in space. Add these varied responsibilities and the technical advances of the past quarter century to the procedures involved in developing, procuring and producing new naval weapons and you have a good reason for adjustments in the naval household.

The Chief of Naval Operations has the job of deciding what the Navy must have to accomplish its mission. In carrying out this and his other responsibilities in the future, CNO will have the advantage of speedier coordination under the new material support organization.

In the past, he would say to each of the material bureaus, "This is what we need. Produce it."

Let's say, for example, the Navy needed a particular type of ship. BuShips would build it. It would be armed by BuWeps. BuSanda would provision it and BuDocks would berth it.

Perhaps the vessel envisioned would be too large for any existing drydock, or perhaps the weapons proposed would necessitate elimination of essential features.

**I**T DOESN'T TAKE MUCH imagination to conjure up situations in which differing interests and emphases could produce problems and friction where spheres of responsibility meet.

Before the ship could be built, the differences among the material bureaus would have to be resolved. Frequently, they have reached on up to the Secretary of the Navy, requiring SecNav to make the decision as to what will be sacrificed for the good of the project.

It isn't difficult to see that this could take up much of SecNav's time and produce a situation in which a

(Continued on page 34)



# NEW ORGANIZATION OF THE



SECRETARY OF THE NAVY

UNDER SECRETARY OF THE NAVY

ASSISTANT SECRETARY OF THE NAVY  
R & D

OFFICE OF NAVAL RESEARCH

CHIEF OF NAVAL OPERATIONS  
VICE CHIEF OF NAVAL OPERATIONS

OFFICE OF THE CHIEF OF NAVAL OPERATIONS

CHIEF OF NAVAL MATERIALS

FLEET ACTIVITIES COMMAND

BUREAU OF NAVAL PERSONNEL

BUREAU OF MEDICINE AND SURGERY

BUREAU OF NAVAL WEAPONS

DISTRICT COMMANDANT

NAVAL OPERATING BASES  
SUPPORT

SHORE ACTIVITIES UNDER

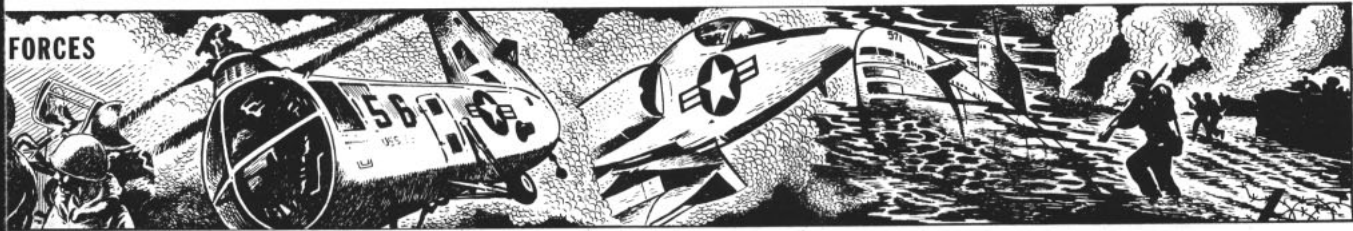
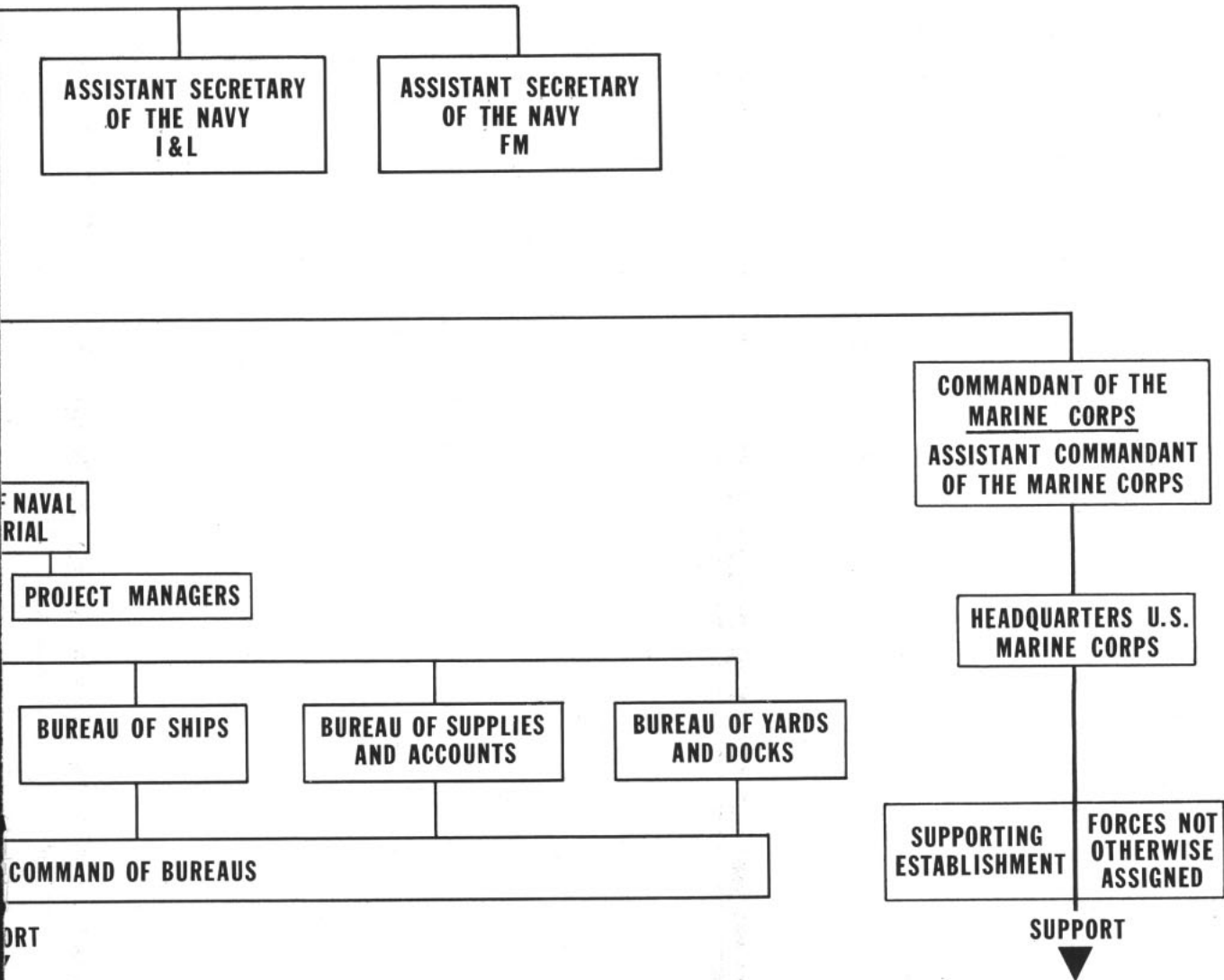
SUPPORT



# DEPARTMENT OF THE NAVY



OF THE NAVY





## REORGANIZATION ROUNDUP

(Continued from page 31)

considerable amount of completed work might have to be redone.

A problem was also posed for the bureau chiefs whose time and energy were being diverted from their primary mission—that is, the technical pursuits of their particular bureaus.

This problem could be solved, the Study Committee decided, by creating a single executive who will serve the Secretary of the Navy, the Chief of Naval Operations and the Commandant of the Marine Corps by advising them on the technological and economic possibilities of meeting the needs of the operating forces.

**T**HE NEW EXECUTIVE — Vice Admiral William A. Schoech, USN — has the title Chief of Naval Material. He is appointed by the Secretary of the Navy and has the deceptively simple mandate to conduct the missions of the Office of Naval Material bureaus effectively, efficiently and economically. He will “control but will not operate” the four material bureaus.

The new chief will clarify the bureaus’ objectives and the objectives of his other subordinates; establish ground rules for getting the job done and resolve any problems which come up among his subordinates.

Coupled with these tasks, the new Chief of Naval Material will represent NMSE in meetings with the Secretary of the Navy, the Chief of Naval Operations and the Commandant of the Marine Corps.

He will be one of the principal Navy representatives in meetings with the Army Material Command, the Air Force Systems and Logistics Commands and the offices and agencies of the Secretary of Defense.

As if this weren’t enough, the Chief must also maintain close personal contact with the senior commanders of the Fleets which receive material support and, of course, be personally in the know in matters concerning his own command.

The new Material Support Establishment will employ a system of project management for getting big jobs done. Smaller projects and programs will be managed by the material bureaus under which they fall.

**W**HEN THE Naval Material Support Establishment came into existence last December, the major projects at the Chief of Naval Material level were: the Fleet Ballistic Missile Program (*Polaris*), Surface Missile Systems Project (*Terrier*, *Tartar*, *Talos*), The F-111B (TFX) and Anti-Submarine Warfare Projects (*Seahawk*, *Dash* and others). When more organizational wheels begin turning, more managers will undoubtedly be appointed at this level.

Most Navymen will realize they have seen concrete results from this form of organization although they may not have realized they were witnessing project management in action.

The success achieved by project management is due to simplifying organizational structure. This is done by directing interest to one ultimate goal through layers of organization which are concerned with comprehensive problems.

As before, the Navy employs graduated project management. This means simply that the project is placed

at a level in the appropriate material bureau which the size and importance of the project dictates. This level of management has the responsibility for the project, the authority to get the job done and the resources with which to do it.

Ideally, every project manager should have exclusive rights to all the technical help he could use to get his job done. Since this is impossible, the Navy must concentrate its technical skills and operate as economically as possible.

This brought about the recommendation that project managers should come under the Chief of Naval Material, thereby giving them (as well as the material bureaus giving them functional support) a common military superior.

The new project managers will enjoy broad authority for the executive direction of their assigned jobs. They will, however, be directly responsible to the Chief of Naval Material for the progress of the work being done under their command, as to time, resources employed, and performance required.

When project managers encounter problems of priority and have difficulties involving other executives, the problems and difficulties will be resolved by the Chief of Naval Material as they occur.

**P**ROGRAM AND RESOURCE control will be combined at the staff level under the Deputy for Programs and Financial Management.

The combination of program and resource control under one executive is expected to eliminate situations whereby an officer might be held responsible for a program without having control of the resources to carry out his program responsibilities. Or just as bad, another officer might be given the control of the money for all programs but not the responsibility for the effectiveness of those programs.

Combining programs and financial management will coordinate these two interdependent elements at the Office of Naval Material level.

Although the Naval Material Support Establishment calls for strengthened project management and prompt resolution of internal problems, it will not radically change the real character of the Navy’s four material bureaus.

The bureaus are expected to continue much as they have in the past, except that they will now receive direction, guidance, coordination and assistance from their new common superior. As was mentioned earlier, the function of the Naval Material Chief is to control, but not to operate, the bureaus.

**T**O ACCOMMODATE the new organization, however, the Secretary’s study group recommended that some bureau functions be realigned. The realignment will take place gradually and will ultimately make the bureaus more effective and strengthen their orientation toward their more important missions.

For example, the study recommends:

- That primary responsibility for shipboard components ultimately be transferred from BuWeps to BuShips.
- That shore activities not supporting the material and technical missions of Bureaus be managed by the Fleet Activities Command (which is another facet of

the reorganization and under the Chief of Naval Operations) see page 30.

- That the management of ship and aircraft operating funds also be reassigned to the Fleet Activities Command.

The responsibilities for managing and funding the maintenance of buildings and grounds and the operation of utilities have already been reassigned from other management bureaus and offices (except the Marine Corps) to the Chief of the Bureau of Yards and Docks, who will perform these responsibilities as the single executive for facilities maintenance.

The establishment of uniform policies of material provisioning and supply management is another facet of the reorganization.

Some of these changes may relieve the bureaus of the responsibility for management of Fleet operating funds and some Fleet support shore activities. All will direct the missions of the four material bureaus toward squeezing the most out of their technical jobs in support of projects and programs directed by the Chief of Naval Material.

The efforts of all will be aimed toward the satisfactory completion of whatever project or program is underway.

**T**O UNDERSTAND BETTER just what the bureaus will be doing under the new organization, let's examine their responsibilities as outlined in their proposed charters.

#### **Bureau of Naval Weapons**

The Bureau of Naval Weapons will be the primary bureau of the Navy concerned with aircraft, weapons and related equipment.

More specifically, it will have material responsibility for all weapons, components, systems and equipment, including missiles, ammunition, and surface and underwater ordnance.

It will also be responsible for Navy and Marine Corps aircraft, components, systems and equipment, including catapults, arresting gear, fuels and lubricants.

Such diversified items as airborne target drones, photographic and meteorological equipment, astronautic vehicles and equipment and special tools and equipment for explosive ordnance disposal also come within its purview.

BuWeaps will also provide comprehensive guidance covering aviation and explosive safety. This includes the development of safety procedures for explosive ordnance disposal as dictated by interservice agreements.

#### **Bureau of Ships**

The area of material support for which the Bureau of Ships will be responsible includes vessels, amphibious craft and vehicles, boats, surface targets, barges, service craft and other surface and sub-surface craft of the Navy.

There are some exceptions to this over-all responsibility, however. They are service craft assigned to the Bureau of Yards and Docks. Commissioned and in-service ships administratively assigned to the Military Sea Transport Service are also excepted.

Other BuShips responsibilities involve shipborne components and systems which have not otherwise been assigned, and materials and appliances for defense

against chemical, biological and radiological warfare in ships and other waterborne craft.

Miscellaneous responsibilities include respiratory protective devices, diving equipment, submarine rescue methods and equipment, and submarine escape training facilities.

Special devices of the Naval Communication Service also come within the scope of BuShips responsibility—as do radio, radar, radiac and sonar equipment and accessories for use ashore, as well as equipage for salvaging sunken and stranded vessels.

The Bureau of Ships will also conduct and coordinate studies and investigations of radiological contamination and the decontamination of radioactivity.

It will also establish specifications for fuel and lubricants for use in naval vessels. It will contract for and supervise salvage operations and maintain data concerning all vessels and craft (except aircraft) of the Navy.

In addition, it will review the technical aspects of merchant ship plans submitted by the Maritime Administration to determine their suitability for conversion or use in time of war or national emergency.

#### **Bureau of Supplies and Accounts**

The Bureau of Supplies and Accounts will act as material manager for the Naval Material Support Establishment. This includes provisioning, inventory management, supply management and disposal.

Specifically, BuSanda will provide technical guidance for Navy material to activities of the Navy and the Marine Corps.

It will administer the Navy Supply System, the Navy Printing and Publication Service, the Resale Program, the Ration Law and the Stock Fund.

It will also purchase, in accordance with authority delegated by the Chief of Naval Material, and perform supply, budgetary, fiscal and statistical functions in support of the Navy's military assistance program and a centralized program of Naval storage facility control.

BuSanda's material support functions will cover materials handling equipment; special clothing not procured by other bureaus; food; and all other naval material for which responsibility is not otherwise assigned.

It will undertake the supply management of naval material items assigned to its control and the transportation of Navy property and the property of naval and civilian personnel. It will maintain official stores accounts for Navy material entrusted to the custody of accountable officers.

BuSanda will conduct research and development in materials, methods, equipment and systems with respect to special-purpose clothing, commissary equipment and food, advanced supply logistics, cargo and materials handling, packaging and preservation and ship's store service equipment.

BuSanda also will provide technical guidance with respect to preparation and service of food in general messes (except at naval hospitals) and provide assistance in the planning and layout of supply spaces ashore and afloat.

#### **Bureau of Yards and Docks**

The job of the Bureau of Yards and Docks is, in a nutshell, to look after the Navy's real estate. This, of course, is a simplification. To be more precise, it is



responsible for the planning, design, construction and maintenance of the naval shore establishment.

BuDocks will provide support to the operating forces of the Navy, the Marine Corps, other supporting organizations and components of the Naval Material Support Establishment in the general area of shore facilities and related material and equipment.

Its material support functions will cover public works, floating drydocks, floating cranes, amphibious pontoon equipment, fixed surface and sub-surface structures, utilities, construction, transportation (including automotive vehicles) and weight-handling equipment (except that belonging to the Marine Corps and equipment assigned to another bureau or office).

Materials and appliances for defense ashore against chemical, biological and radiological warfare, except instruments for detection and measurement of radioactivity, will all fall within BuDocks' jurisdiction.

BuDocks will also be responsible for maintenance of grounds, buildings and structures; operation and maintenance of utilities; and acquisition, management, maintenance and disposal of family housing (except at Marine Corps activities).

It is charged with the inspection and approval of design and construction for items which are funded from Navy appropriations at privately operated establishments and that which would constitute public works or public utilities if constructed at a naval shore activity.

It will handle the acquisition, inventory, disposal and (except for the Marine Corps) leasing of real estate. Its job will also include the management of excess real property, and it determines and authorizes the rates of sale of utility services to private parties, other government agencies and welfare activities within the Department of the Navy.

BuDocks will also develop programs, procedures, standards and technical data (within established policies) and coordinate technical assistance for natural resources management.

IN CONSIDERING the functions of the four material bureaus under the Naval Material Support Establishment, you may have gained the impression that, basically, they have retained, or have been delegated, those duties which directly apply to their technical mission. If you did, the impression is correct, for here and there duties have been lopped off one bureau and added to another or given to an office of the Naval Material Support Establishment. In some cases, they have been re-assigned to other naval organizations, such as the Fleet Activities Command.

The Naval Material Support Establishment is today only in its infancy. There is, however, little doubt that the concept will work. It is used by large corporations and is a fact of big business life.

For the Navy, it should produce a single military officer whom the Secretary of the Navy can hold responsible for managing the material support efforts of the Navy Department.

The Chief of Naval Operations and the Commandant of the Marine Corps can concentrate on today's operations and tomorrow's requirements, leaving material support to the Chief of Naval Material.

The Assistant Secretaries will have a single executive agent through whom they can exercise their functional responsibilities.

Effective project management will be made easier.

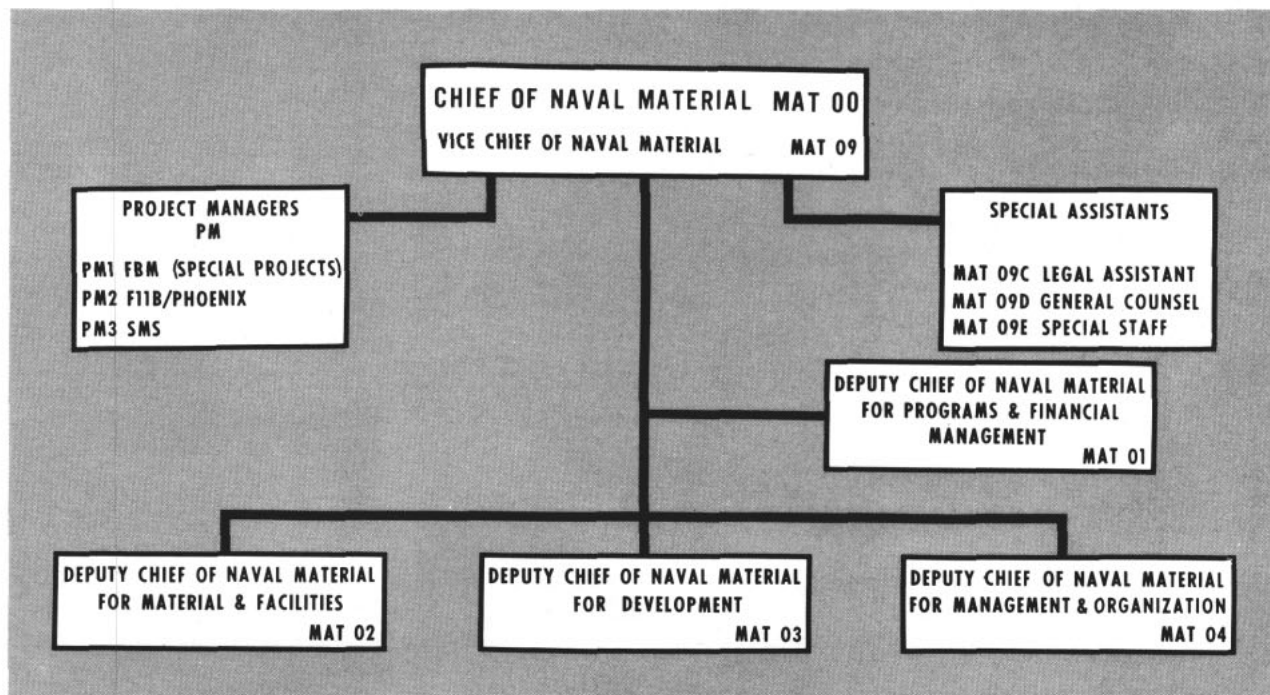
Conflicts among the material bureaus can be more readily resolved.

Wartime logistic support will be possible without a major organizational upheaval.

These factors combined will produce an improved environment in which the scientist, the engineer, the technician and the manager can work more effectively.

When they are added together, these changes should produce the sum total which, simply stated, is the *raison d'être* of the Naval Material Support Establishment: Better weapons faster and more economically for the combat forces of the Fleet.

—Robert Neil



# ★ ★ ★ ★ TODAY'S NAVY ★ ★ ★ ★

## America Is Launched

The Navy's eighth post-World War II attack aircraft carrier, *America* (CVA 66), was launched at Newport News last month.

*America* has an over-all length of approximately 1048 feet and her flight deck is 252 feet wide. Her full load displacement is 77,000 tons and, when operational at sea with air group embarked, she will have a complement of 4900 officers and men.

*America* will carry surface-to-air *Terrier* missiles, the Naval Tactical Data System (NTDS), long range radar installations, a bow-mounted sonar for submarine detection and an automatic landing system.

The new carrier will have four steam catapults and four deck-edge elevators. Her conventional power plant will deliver 200,000 shaft horsepower to propel her at speeds in excess of 30 knots.

*America's* keel was laid in January 1961. Her completion date is expected to be early in 1965.

## Essex Is an Active Twenty-One

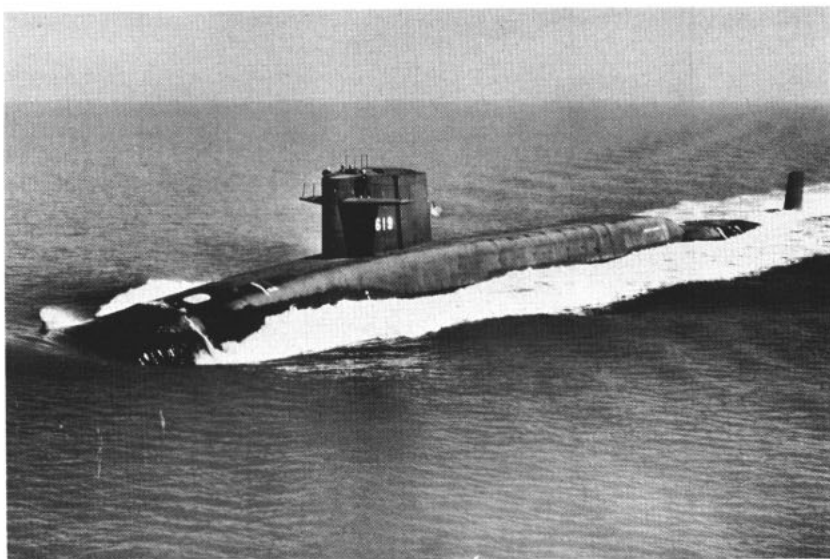
The Navy's oldest commissioned aircraft carrier, *uss Essex* (CVS 9), is 21. *Essex* was the first U. S. commissioned aircraft carrier ever to reach that age while on active duty.

The ship is the second oldest active aircraft carrier in the world. The oldest is *HMS Victorious* of the British Navy, which was completed in May 1941.

*Essex* was the first of the class which bears her name. More than 20 *Essex*-class CVs were eventually commissioned, though several were built too late to take part in World War II.

Commissioned CV 9 on 31 Dec 1942, *Essex* steamed for the Pacific Theatre in May 1943. That August she participated in a surprise attack at Marcus Island and later played a part in almost every major Pacific battle of the war.

In 1947 she was inactivated, to remain with the mothball fleet for four years. She was then recommissioned after her flight deck had been



THE NUCLEAR-POWERED fleet ballistic missile submarine, *USS Andrew Jackson* (SSBN 619), displacing 7000 tons, has joined the U. S. fleet.

enlarged and a new superstructure installed.

During the Korean Conflict *Essex* made two action cruises with Task Force 77.

In 1955 she pulled into the yard for the installation of an angled flight deck, hurricane bow, and a new deck edge elevator. She was reclassified as a CVS in March, 1960. In the Atlantic, she was on hand during the Cuban crisis of 1962 and participated in the quarantine operation.

*Essex* is still going strong. Presently serving with the Antisubmarine Force, Atlantic, she is headquarters for a Lant Fleet hunter-killer group.

## No Rocker for Grandma

Grandma *Cimarron* will spend her silver anniversary doing what comes naturally—pumping fuel oil and aviation gasoline to other ships in the Seventh Fleet.

*uss Cimarron* (AO 22) has had the longest continuous commissioned service of any active ship in the Navy. Commissioned on 20 March 1939, she has rarely rested since.

She's a war horse, too. The oiler participated in almost every major operation in the Pacific during World War II and fueled more ships than any other fleet oiler at that time.

*Cimarron* is currently on deployment to the Western Pacific.

## BUILDERS OF THE NAVY



Captain Thomas Truxtun lived in an era when the cat o'nine tails and keelhauling were facts of Navy life. Despite the severity of contemporary discipline, however, Truxtun's motto was "Care for your men; see that each understands his duties; exact instant obedience; superintend everything; practice daily with the guns." The state of preparedness which his ship *CONSTELLATION* maintained, and the respect for discipline which he instilled in his men were largely responsible for his defeating *INSURGENTE* in 1799 and *VENGEANCE* in February of 1800 during the undeclared war with France.



### Fresh Water for McMurdo

Although McMurdo Sound has always had an abundant supply of water, it was all frozen. The solid water has had to be laboriously hauled from snow mines and melted before it could be used.

The installation of McMurdo's PM3A nuclear power plant created the possibility of other water sources, however. Last year, the possibility began its move toward becoming reality when a structure to house a de-salting plant was built by U. S. Naval Mobile Construction Battalion Eight from Davisville, R. I.

This year, the Seabees expect to complete the job in the five months during which the weather permits construction.

Two 55,000-gallon salt and fresh water tanks are being installed as well as a distillation unit with a capacity of 14,000 gallons of fresh water per day.

Pipes will be laid on the slope of Observation Hill to the Ross Sea from which water will be pumped up the hill for processing.

To keep the salt water from freezing on its way up the hill, the pipe will be surrounded by coils heated by electricity from the nuclear power plant.

After the salt water is distilled, it will be piped to McMurdo consumers.

The medics are happy about the prospect of an ample water supply

because they expect it to decrease the number of digestive illnesses which occur due to insufficient water.

Everyone else is pretty pleased, too, from the man who likes to stop at the drinking fountain whenever he feels thirsty to the chief commissaryman who rubs his hands together in anticipation of using steam to prepare food.

### Jet-Propelled Ships?

Will ships of the future be jet propelled?

This is a question the Navy hopes to answer while checking out a waterjet propulsion system designed to drive ships across the water at speeds of more than 80 knots.

The waterjet is an aquatic version of a jet aircraft engine. It swallows large quantities of water (aircraft gulp air), passes it through engine-driven pumps, and ejects it through rear nozzles.

The result is a water produced thrust that sends the ship racing across the water.

Engineers who designed the system make two points in summing up the advantages of waterjet propulsion over marine propellers (such as those now in use).

- Mechanical simplicity—no complex gearing and shafts.
- Reduction of water cavitation problems. (At high speeds a water vapor bubble, or cavitation, forms around the blades of a ship's pro-

peller. Bubble bursting, which results from the high pressures generated, sometimes produces a force strong enough to tear the prop apart.)

Emphasis on waterjet design is being placed on a system capable of powering a large hydrofoil ship at speeds of 80 knots (92 mph). Also under study is the possible use of waterjet propulsion for conventional surface ships.

The waterjet system will be studied under a Navy contract by a commercial aircraft company on the West Coast. It is expected that the study will take two years to complete.

### Look, Fellas—No Hands

The electronic equipment which is being used more and more to help run the Navy is reliable only if Navy technicians can keep it operating properly. Some of the electronic systems these technicians are trained to care for have incredible-sounding capabilities.

At the Naval Air Technical Training Center, Glynco, Ga., for example, Navymen are being trained to care for the SPN-10 Automatic Landing System, a "hands-off" system that can automatically control and land an aircraft—even on an aircraft carrier in heavy seas when visibility is obscured by heavy rain, snow or fog.

The system is already operating on four carriers — *uss Midway* (CVA



**WELCOME ABOARD** — Norman Paul, Assistant Secretary of Defense (Manpower), visits *USS Pocono* (AGC 16) during exercise 'Quick Kick'. Left, he is briefed by VADM John McCain, Jr., USN, Commander Amphibious Force, Atlantic. Right, he extends congratulations to a group of top chief petty officers of the amphib force flagship.



**VARIETY STORE** — Items from uniforms to sodas are available in centralized ship's store of *USS Frontier* (AD 25).

41), *Independence* (CVA 62), *Franklin D. Roosevelt* (CVA 42) and *Ranger* (CVA 61). It is a dual-radar system, capable of handling over 100 aircraft an hour. It is expected to contribute to a decrease in accident rates when visibility is limited, being able to function even when the ship is heaving excessively.

Classroom training on maintenance of the system began recently at Glynco after the gear was installed in a hangar training area.

Graduates of the advanced electronics technician school and the computer school who are second class and above are eligible for training.

### NAS Port Lyautey Closes

After an acceptance speech by Moroccan Foreign Minister Ahmed Reda Guedira, the band played the Moroccan national anthem and two soldiers hoisted their country's red and green flag.

This brief ceremony marked the end of the U. S. Naval Air Station, Port Lyautey, Morocco, a familiar stopping-over place for Navymen transient to and from the Mediterranean, and a familiar duty station for many Navymen and Marines since World War II.

Under an agreement with the Moroccan government, the United States has closed all its bases in that country.

Port Lyautey is now a Moroccan Army base, and will also serve as the site of Morocco's military academy. The academy began setting up shortly before the base was transferred, and it is expected that a senior officers' school will also be added.

The U. S. Naval Station at Rota, Spain, now handles the functions formerly performed by NAS Lyautey, including operation of VR-24, which supports naval activities in the European-Mediterranean area.

### Frontier Store

A centralized ship's store has replaced the ship's service, soda fountain, and uniform clothing stores aboard *uss Frontier* (AD 25) in Long Beach, Calif. It is one of the first consolidated ship's stores scheduled for installation in Navy ships under a new ship's service modernization program.

*Frontier's* store is built like an exchange ashore, with self-service shelves for many items and clerk service for more expensive merchandise such as watches and cameras. An ice cream bar serves within the store and through an outside service window. It's a popular spot.

Cigarette, candy and canned soft drink machines are located near the store and will operate 24 hours a day. The canned soft drink machines were installed by the Navy Department on a trial basis. If proven feasible, they may replace the standard paper cup vending machines now used throughout the Navy.

Most of the construction work for *Frontier's* new store, which opened in December, was done by the ship's repair department.

### Sacramento Stays In Seattle

The Navy's first fast combat support ship, *Sacramento* (AOE 1), which is designed with the combined capabilities of three ships in

one, will be homeported in Seattle, Wash., upon commissioning.

*Sacramento* will have a crew of 508 officers and men. She will function as an oiler, an ammunition ship and, to a lesser degree, a stores ship. She will provide the Fleet with black oil, aviation fuel, diesel fuel, conventional ammunition, various missiles and ordnance, provisions and other freight.

She will be capable of sustained speeds in excess of 20 knots and will have a vertical replenishment capability with three cargo helicopters. Because of her high speed capability, she will operate as an integral part of a fast carrier task force rather than with slower underway replenishment groups.

*Sacramento* was launched at the Puget Sound Naval Shipyard in September. Her tentative date for commissioning is March 1964.

### Seaplanes Leave Atlantic Fleet

The end of 1963 marked the end of an era for naval aviation for it was on 30 December that the last seaplane patrol was flown in the Atlantic Fleet.

The last patrol brought to a close 53 continuous years of Atlantic Fleet seaplane operations and 21 years of seaplane operations by Patrol Squadron 45 which began flying P3A *Orions* in January.

PATRON 45, which has spent 20 of its 21 years deployed outside the United States, came home upon the arrival of the *Orions* in the squadron. Its new home is Jacksonville, Fla., where it is under the control of Commander Fleet Air Wing 11.

# All-Navy Sports Tourneys Get Underway

**R**ULES FOR THE 1964 All-Navy sports championships have been published, and competition is underway. The first event this year is the basketball tournament at Naval Station, Norfolk, from 2-7 March, closely followed by swimming at Naval Training Center, San Diego, on 13-14 March.

Championships this year will be staged in six other sports: volleyball, boxing, bowling, tennis, golf and softball.

Here are rules concerning each event:

## ● Basketball (Men):

National Basketball Committee rules.

Double elimination tournament.

Maximum 12-man squad, including officer-in-charge, manager and coach.

Interservice team—A team to represent the Navy in the Inter-Service championships will be selected, using the All-Navy winner as a basis, and including outstanding players from other teams competing in the All-Navy championships.

## ● Swimming (Men):

AAU rules.

Events—100-meter, 400-meter and 1500-meter freestyle; 200-meter backstroke, breaststroke and butterfly; 400-meter individual medley; and 400-meter freestyle and medley relays.

Maximum 12-man squad, plus officer-in-charge and coach.

Entries—through regional coordinators.

## ● Volleyball (Men):

International rules.

Double round robin tournament.

Maximum 12-man squad including coach and officer-in-charge.

A training squad will be selected from competing teams as the basis for a Navy Interservice team.

## ● Boxing:

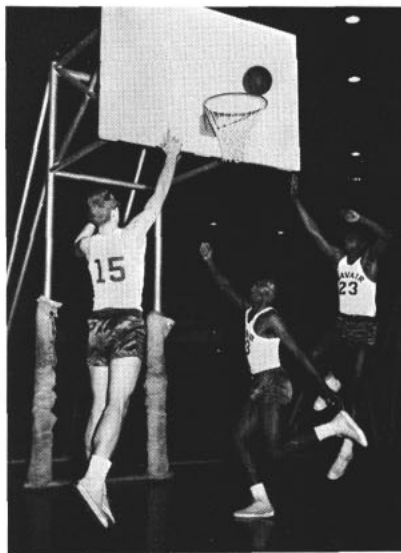
AAU rules modified to three three-minute rounds, with headgear mandatory.

Single elimination tournament.

Squad composed of one participant in each weight class, plus officer-in-charge and coach.

Squads will furnish headgear and uniforms; host command will furnish gloves, hand wraps and other necessary equipment.

A training squad will be selected



from competing teams as a basis for the Navy Inter-service team.

## ● Bowling (Men and Women):

ABC and WIBC rules.

Men will compete in a single round robin, six games per match. Women will compete in a double round robin, three games per match.

The five members bowl each game, with only the highest four scores counting toward team winner. Low scorer in each game can count score toward total pinfall for individual championship.

Highest team scores win men's or women's championships, and highest individual scores win men's or women's individual championships.

## ● Tennis (Men and Women):

USLTA rules.

Four men in Open category and

two in Senior category from each region, and four women in Open category from each coast constitute maximum squad sizes.

Single elimination tournaments.

A men's team of five Open and three Senior competitors will be selected to represent the Navy in the Inter-service championships.

## ● Golf (Men and Women):

USGA rules.

72-hole medal tournament.

Four men in Open category and two in Senior category from each region, and six women in Open category from each coast constitute maximum squad sizes.

A men's team of five Open and three Senior competitors will be selected for Interservice competition.

Invitational qualifying tournaments will be held on each coast for women to qualify for All-Navy competition. Dates and sites will be announced by commands selected as hosts for these events. Participants will be nominated on a command or district basis.

## ● Softball (Men):

ASA rules.

Double elimination tournament.

Maximum 16-man squad, including officer-in-charge and coach.

Subject to provisions of Department of Defense policy on participation in events within the public domain, the All-Navy championship team, if otherwise qualified, may participate in ASA Men's World Fast Pitch Tournament.

Teams or individuals who qualify for the All-Navy championships should remember that they will be expected to represent the Navy at higher levels of competition if selected.

Individuals competing in All-Navy events will receive \$3.00 a day per diem for the period of participation and travel time involved.

Details are contained in BuPers Notice 1710 of 10 Jan 1964.

## Oriskany Takes Seventh Fleet

The basketball team of *uss Oriskany* (CVA 34) ended the recent season in high spirits after winning the Seventh Fleet championship in Yokosuka, Japan.

Twenty-two teams competed in the three-day tournament. *Oriskany* won by defeating *uss Vernon County*





(LST 1161); *Blue* (DD 744); *Castor* (AKS 1); and in the final game, previously undefeated *USS Hector* (AR 7).

### Baseball Team Will Tour Japan

A U. S. amateur baseball team will probably be formed to play an exhibition schedule in Japan during the 1964 Olympics this October. Applications for positions on the team are wanted from outstanding amateur baseball players.

Only bona fide amateurs can be considered, and this means you:

- Must not be, or knowingly have become, a professional in any sport.
- Must not have received reimbursement or compensation for loss of salary while engaged in sports.
- Must not have been a teacher receiving remuneration for instruction in physical education or sports.

Your application, sent to the Chief of Naval Personnel (Attn: Pers-G) via your commanding officer, should contain the following information:

- Name, grade or rate and serial or file number.
- Present duty station and date reported.
- Date of expiration of present enlistment, or planned rotation date.
- Home town.
- Height, weight, age and marital status.
- Medical officers statement of your physical qualification.
- Past experience in baseball, including all pertinent data such as AAU, NCAA and YMCA competitions engaged in and last date of competing.
- Statement concerning the suitability of training facilities at your base or readily accessible in your area.

The following specific information should also be included: Position, batting average, fielding average, last season of play, whether right- or left-handed for batting and throwing, and any honors received.

You must sign the following statement and have it certified by your Special Services officer:

"I, the undersigned, declare on my honor that I am an amateur according to the Olympic rules of amateurism and that I fulfill the conditions required by the Olympic rules."

Your application should be submitted in accordance with all other provisions of the *Special Services Manual*, NavPers 15869A, Art. 2115.

## FROM THE SIDELINES

**C**ISM PLANNERS gave Navy-men a challenge to general physical fitness long before the heavy emphasis on that happy condition was initiated on a nationwide basis.

With the introduction of the naval pentathlon they made it possible for a Navyman to work his way into the international arena without being a one-shot specialist, but by doing what comes naturally—or almost naturally—to a sailor.

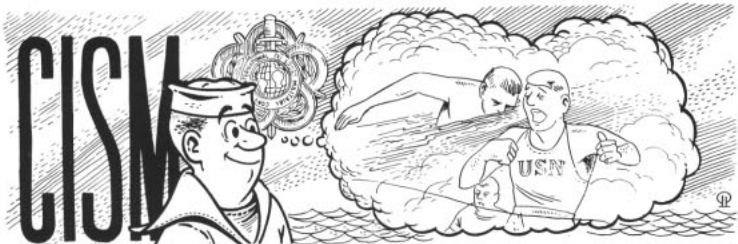
The naval pentathlon consists of an obstacle race, life-saving contest, utility swimming race, a test of seamanship skills, and an amphibious combat race over a 2500 meter course with water hazards, shooting and grenade throwing included.

The first U. S. team entry

After you put yourself to the test, have someone authenticate your results on another trial. A record of your best effort will give the Bureau of Naval Personnel a glimpse of your capabilities.

If you can meet the quals, submit your application via your commanding officer, including the following information:

- Name, rank or rate, and file or service number.
- Duty station, current duty status and anticipated re-assignment date.
- Age, height and weight.
- Previous experience in related competitions, if any.
- Statement of medical officer concerning your physical qualification to participate in such competition.



in this event was in Athens in 1962. This team was organized on short notice and did not fare too well. In our second effort, last year, the U. S. team placed third. This year we hope to do even better, and maybe you can help.

Here are some of the qualifications you must meet to be considered as a team member:

- Run one and one-half miles in nine minutes or less.
- Swim 50 meters, holding an M1 rifle above the water, in 55 seconds or less.
- Swim 100 meters with your clothes on, in two minutes.
- Swim 200 meters, with fins, in three minutes.
- Do 15 pull-ups and 45 push-ups.

- Best performances on each of the qualifying events listed above.

If you're selected, you will be given the opportunity to participate in screening trials at the Naval Amphibious Base in either Little Creek, Va., or Coronado, Calif. Each coast will select a squad which will remain and train for the final team selections at the U. S. Naval Academy during the period 15-17 July.

For the one catch—you have to perform all the qualifying events within a 48-hour period. But then, that's what makes you an iron man.

BuPers Notice 1710 of 20 Jan 1964 has the scoop, and time is short.

—Bill Howard, JO1,

## SERVICSCOPE

Brief news items about other branches of the armed services.

A NEW MASS FREE FALL record has been established by 13 Army and Air Force parachutists who fell nearly eight miles through space before they opened their chutes.

The team members jumped in pairs from an Air Force C-130 transport over El Centro, Calif. Each man fell 41,000 feet during a three-minute, 20-second free fall.

The previous mass free fall record was 36,650 feet, set in 1961 by nine Russian parachutists.

The temperature was 67 degrees below zero when the U. S. jumpers left their plane. Each was equipped with oxygen and wore appropriate cold weather clothing.

Each jumper also carried a sealed barograph which automatically measured variations in atmospheric pressure. These are being studied by the Federation Internationale Aeronautique in Paris, the recognized authority for world aviation records. The barographs testify to the jump and parachute opening altitudes.

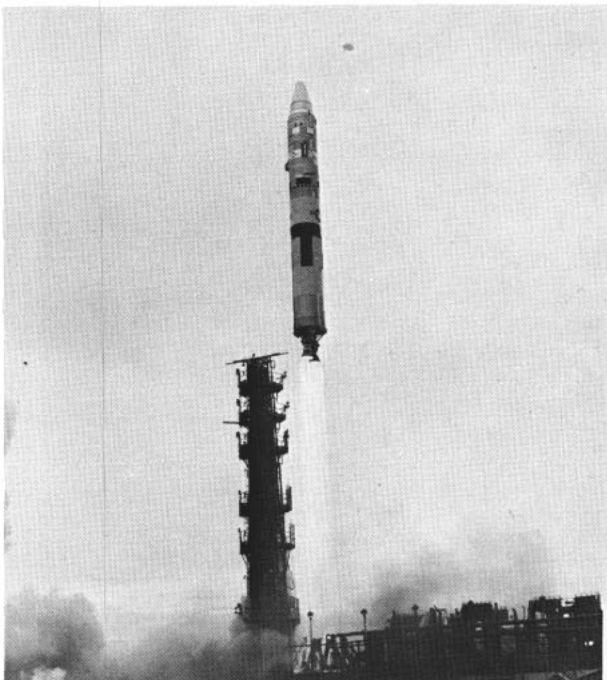
All the U. S. chutists involved in the record jump are undergoing training in Operation Halo (high altitude, low opening).

★ ★ ★

WITH THE NEW YEAR underway, the Coast Guard has taken a look back at its accomplishments in 1963 and revealed that:

- During the year, ships of the Coast Guard Cuban Patrol operating off the coast of Florida rescued nearly 1000 Cuban refugees. The patrol is maintained to prevent violation of United States laws by Cuba-bound raiders.

- As a result of studies about the United States' vulnerability to enemy agents entering the country from



TESTING—USAF Titan II ICBM takes off to check Gemini malfunction detection system and its own exhaust plume.



USCG ICEBREAKER *Northwind* is moored to hummocked ice in Siberian Sea during oceanographic exploration.

the sea, the Coast Guard took steps to coordinate surveillance of the coastlines with state and federal agencies.

- Coast Guard electronic engineers continued to develop and adapt new techniques and devices aimed at reducing hazards at sea. One of the most important of these was the installation of a Long Range Aid to Navigation (Loran) station in Greenland, providing complete Loran coverage for the North Atlantic. Four Loran-C installations extending to the Sea of Japan were completed in the Pacific, with a fifth under construction. There is a possibility that Loran-C may be a forerunner of a world-wide electronic policeman to detect nuclear detonations.

- The Coast Guard saved 1900 persons and answered 37,330 calls for assistance which involved a total property value of nearly \$1 billion.

- They examined 4741 merchant vessels with a gross tonnage of 11,261,185; made dry dock inspections of 5725 others, and maintained a continuing check on safety conditions in America's Merchant Marine.

- They administered an intensive small boat safety program and operated nearly 42,000 aids to navigation.

At the same time, the Coast Guard continued to maintain itself in a state of constant military readiness so that it may work effectively with the Navy in the event of an emergency.

★ ★ ★

A MINIATURE RADIO receiver and transmitter has been developed by the Army for use by infantry squads in forward battle areas. It will make voice radio communication possible between squad leaders and their men as well as between squad and platoon leaders.

Formerly radio communication ended with the squad leader who communicated with his men by means of hand signals or voice.

The receiver, which is designed to be pocket carried or helmet mounted, has 13 transistors and seven diodes mounted on printed circuits.

It weighs about nine ounces and is powered by dry cell batteries smaller than those ordinarily used in a pen-sized flashlight.

The batteries give 24 hours of continuous operation



UH-1B HELO from the Army Transportation Board, Fort Eustis, Va., takes off from Williams Field, Antarctica.

and can be replaced in seconds. A 12-inch antenna is made of flexible steel tape.

The transmitter, which must be hand-held, weighs about 15 ounces and can be stowed in a pocket while not in use. It has 12 transistors and also uses printed circuits.

★ ★ ★

THE AIR FORCE is taking a close look at a new chemically powered missile that can be fired from low flying aircraft and go faster and farther than air-to-surface missiles now in use.

The new missile, which is supersonic and is named *Clam* (for Chemical Low Altitude Missile) will be studied under contracts awarded to two aircraft producers by the Air Force Systems Command.

The contracts call for six months of planning studies of *Clam*, including operations analyses and preliminary designs of a complete chemically powered missile system.

★ ★ ★

AN ARMY MEDICAL GROUP has returned from Bolivia where it was sent to help combat a disease called pinta. The Armymen were part of the Middle American Research Unit (MARU).

Because its victims are plagued with red, blue or violet skin discoloration, pinta is also known as the disease of the painted ones. It is caused by a microorganism of the tripanemes or spirochetes family.

The field research investigation was designed to establish clinical and laboratory diagnoses of pinta among residents of four communities along the upper reaches of the Beni River.

The mission accomplished the first steps in the elimination of pinta, but it will be necessary to re-examine the 150 treated persons in a year or so to find out whether or not the persons treated were completely cured.

★ ★ ★

ONE OF MANY rungs in the unclimbed ladder to the moon is being stepped on by 12 Air Force pilots selected to participate in "human reliability" studies involving a simulated lunar landing.

Using a full-scale lunar excursion type space ship, the

pilots will land on the "moon" in three-man teams, stay there for seven days gathering information, and return to earth. Four such simulated excursions will be made, each with a different space crew.

The 12 pilots are representative of the astronaut population. Each is a graduate of the Aerospace Research Pilot School and volunteered for the "moon landings" while working with the Air Force Systems Command.

The lunar landing experiments are being conducted in Baltimore, Md., under the direction of the National Aeronautics and Space Administration.

★ ★ ★

NEW TYPE boats adaptable for use in Southeast Asia guerrilla fighting have been unveiled by the Defense Department's Advanced Research Projects Agency (ARPA).

One boat, called the swimmer-support boat, has a very shallow draft with a thick plastic styrofoam shell. Unlike commercial plastic skiffs, it will not sink if punctured: water merely fills the cells around the hole and does not penetrate the whole shell.

The other boat is called the marsh screw vehicle, also designed for use in swampy areas. Two counter-rotating propellers push it at 15 to 25 knots through water or mud.

Arctic tests show it is also excellent for movement through soft snow.

★ ★ ★

A NUCLEAR PROJECTILE which can be fired from a standard 155-mm howitzer has been developed by the Army and the Atomic Energy Commission. The range of the nuclear round will be about the same as for the conventional high explosive shell.

All 155-mm howitzers can fire the atomic shell. Howitzers of that type are used for conventional warfare by infantry and mechanized divisions and armored cavalry regiments.

Both the Army and Marine Corps have received training devices designed to assist in teaching artillery crewmen to assemble and fire the atomic projectile. Actual nuclear ammunition will be available in the near future.



COAST GUARD vessels and helo battle flames on merchant ships after a collision near Buzzards Bay, Mass.



# THE WORD

## Frank, Authentic Advance Information On Policy—Straight from Headquarters

• **MMs IN NUCLEAR PROGRAM**—Machinist's mates are now being included in nuclear submarine allowances, and enginemen trained in nuclear propulsion are being permitted to fill MM billets in the surface nuclear propulsion program.

To get the right man in the right billet, enginemen and EN strikers in pay grades E-3 through E-5 in nuclear power plant operator NECs can compete for advancement to either EN in the next higher grade or convert to MM in the next higher grade.

To compete, converting ENs must:

- Volunteer to change ratings.
- Complete the required training courses and practical factors for the alternate rating.
- Have an average of 3.0 or above on all enlisted evaluations for the last two years.
- Be recommended and authorized by their commanding officer to compete in the examination.

Complete information on the mechanics of changing ratings is in BuPers Instruction 1440.5D.

• **ATTACK CAG DESIGNATION CHANGED** — Attack Carrier Air Groups have been redesignated Attack Carrier Air Wings by the Chief of Naval Operations. The change, effective last December, applies only to those air groups which deploy aboard attack aircraft carriers. Units which embark on support carriers are not affected.

The term "air wing," according

to OpNav Notice 5440 of 20 Dec 63, is more descriptive than "air group" when applied to air units embarked in attack carriers. The total number of aircraft in an Attack Carrier Air Group (CAG) is comparable to the number of aircraft in similar air wings of other services. In fact, the Attack Carrier Air Groups often have more diverse capabilities.

Functions, missions and numerical assignments for Attack Carrier Air Wings (CAW) have not changed.

• **RATING CHANGE TO AZ**—The ratings of over 450 Navymen in the aviation field have been changed to Aviation Maintenance Administrationman (AZ) by a Navy selection board. (The names of the men were published in BuPers Notice 1430 of 23 Dec 63.)

Navymen who were not named in the notice, but who desire to change their rating to AZ, will—if qualified—be placed in in-service training and authorized to compete in the next Navy-wide examination. Requests for such change must be submitted in accordance with BuPers Inst. 1440.5D.

Pay grades of the AZs remain the same as those held before the rating change. Men who were advanced as a result of the August examinations were changed to AZ in their new pay grades.

The BuPers Notice which named the new AZs also announced that Navymen attending service schools in other ratings at the time the notice

was issued, and who completed eight or more weeks of schooling by 1 Jan 1964 are ineligible for change even though they were named by the selection board. Navymen on the AZ list who have been issued orders to schools in other ratings will probably have those orders cancelled.

So far, nothing has been published on sea and shore rotation for AZs.

Navymen who are listed in the instruction will be changed to AZ by their commanding officers as soon as they have met typing requirements listed in BuPers Notice 1440 of 22 Jul 1963.

• **ALL NAVY CARTOON CONTEST**—It's time to submit your cartoons for the Ninth All-Navy Comic Cartoon Contest. The rules are similar to those of preceding years.

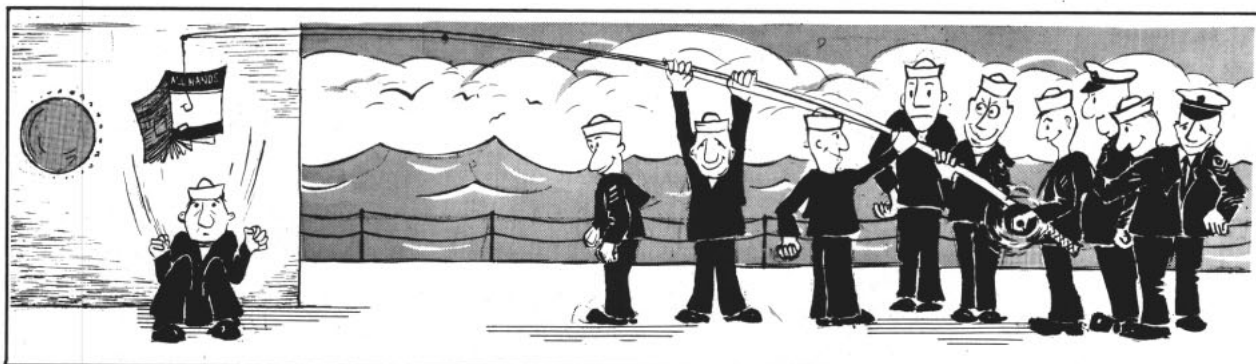
All entries must reach the Chief of Naval Personnel (Attn: Pers Gll) by 1 June.

Rules governing the contest were published in BuPers Notice 1700 of Jan 1964. They provide that:

All naval personnel on active duty and their dependents are eligible to submit entries. Comic (gag or situation) cartoons, to be acceptable, must have a Navy theme or background, must be in good taste, and must be suitable for general use. Cartoons must be in black ink on 8-by-10½-inch white paper or illustration board.

You may enter as many cartoons as desired but each entry must contain the following information and statements securely attached to the back of the entry:

Full name of originator; rate/grade; service/file number; duty station; hometown and hometown newspaper; command recreation fund administrator; a brief statement certifying the cartoon is original and



YOU TOO can put ALL HANDS on the line if, when you've finished this copy, you'll promptly pass it on to nine others.

commanding officer's endorsement forwarded, signed either by the commanding officer or his representative.

Type the following statement and sign—"All claims to the attached entry are waived and I understand the Department of the Navy may use as desired." Signed . . . (Name of contestant).

Dependents should supply appropriate data above and should make this statement: "I am the dependent of . . . (Name, rate, grade, etc.)."

Awards, furnished by the Chief of Naval Personnel, will be forwarded to the respective commanding officers for presentation to the winners of the first five places. The winning cartoons, plus other leading entries will be published in ALL HANDS magazine and suitable notation will be made in the Special Services Newsletter.

All entries submitted will become the property of the Department of the Navy for use as desired and will not be returned. Good luck.

#### • STEWARDS' BILLETS OPENING

—More advancement opportunity to the higher steward rates will be available as a result of continuing efforts on the part of the Chief of Naval Personnel.

The first step was the promulgation of BuPers Inst. 1133.16 in March 1963, which required that all stewards, except senior and master chiefs, who desired to remain on active duty after completing 20 years of active service, submit a request for retention to the Chief of Naval Personnel. The instruction also provided for the establishment of a retention board to consider these requests and decide whether or not permission would be granted.

This action was taken because an exceptionally high steward reenlistment rate, coupled with a continued reduction in petty officer requirements, resulted in a logjam in the higher steward pay grades.

A large group of World War II enlistees are becoming eligible for retirement. Advancement opportunities for lower steward rates would be greatly reduced if the number of those who are eligible for retirement, but who wish to stay for more than 20 years, remains as high as it has in the past.

So the retention board was formed

to increase advancement opportunities for the lower rates.

Under the instruction, those who are nearing the completion of 20 years of active service, but whose enlistment expires before they are credited with sufficient active service for retirement, are authorized to reenlist for two, three, four or six years, or extend in yearly increments up to a total of four years. Commanding officers are instructed to limit terms of reenlistment, extensions of enlistment or active duty agreements so that contracts will expire as soon as possible after the completion of 20 years of active duty, "or in any event prior to the completion of 22 years of active duty."

Apparently that latter part of the sentence quoted from the instruction has been misinterpreted in that some individuals are being allowed to obligate themselves up to 22 years when a shorter term should have been effected.

Actually, the intent of the instruction is that individuals will be permitted to complete the *minimum* service for transfer to the Fleet Reserve, but not obligate themselves beyond that time without prior approval of the Chief of Naval Personnel.

This is to be done by employing a combination of the reenlistment and extension periods authorized by the instruction, and also by including all constructive service in the final tally.

In an attempt to clarify this, Change One to BuPers Inst. 1133.16 has been transmitted, directing that the portion of the instruction which reads "and in any event prior to the completion of 22 years of active duty" be deleted.

• **DEPENDENTS' SCHOOLS UNIFIED**—Army, Navy and Air Force dependents' schools have been unified under the policy direction of the Department of Defense.

Each of the services will continue the physical operation of its schools, but all will have uniform standards for selection, assignment and transfer of professional school personnel; centralized procurement of texts.

Armed forces schools provide public school education in grades one through 12 for dependents stationed overseas. There are 222 elementary and 63 junior-senior high schools in 28 countries.

## HERE'S YOUR NAVY

Years ago, caribou roamed the rocky reaches of Maine's Mount Katahdin but, for reasons unknown, they forsook the safety of the heights; came within range of man's hunting rifles and ceased to exist there.

The state of Maine decided it would again like to have a caribou herd roaming Mount Katahdin, and arranged to swap 400 Maine grouse for 24 Newfoundland caribou.

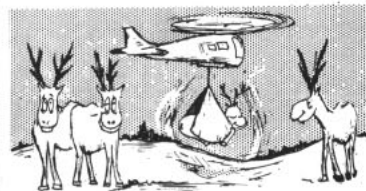
Newfoundland game rangers rounded up 18 does and six stags in the interior of their country and shipped them to a corral at Togue Pond, at the base of Mount Katahdin. It was up to 16 Navy-men of Helicopter Utility Squadron 4, from the Naval Air Station at Lakehurst, N. J., to airlift them to the craggy heights in two helicopters.

From a caribou's point of view, Mount Katahdin approaches paradise. There is plenty of lichen—moss which caribou like to eat; it is cold, and best of all, there are no people.

Helicopter pilots, however, take a different view of Maine's highest mountain. To them, its rocks and treacherous air currents were distinctly unfriendly.

Weather was a problem too, holding up the operation several days.

Each beast was felled with a dart-shaped tranquilizer pellet, and 12 minutes later was snoring lustily.



The caribou were placed in wooden cradles; their legs were trussed; and they were blanketed with canvas and airlifted to their new home, where they were untrussed and left to awaken.

The airlift lasted one day, as caribou sailed serenely out of the Togue Pond corral to Katahdin's heights and a happier land than he had known.

As the day wore on, however, the weather worsened, and six does still remained in the corral. The jet helos just beat the storm to Togue Pond, returning five men from the drop area with the news that the herd was in good condition and had taken off for even higher rocks.

The weather showed no sign of moderating over Katahdin, so the Navy-men had to return to Lakehurst leaving six does still corralled at Togue Pond.

When the weather moderated, they were taken as high as possible by truck, with the near certainty that they would join the remainder of the herd.

# THE BULLETIN BOARD

## One-Year Tours Scheduled For Gitmo as Dependents Are Ordered to Stay Home

Dependents may no longer accompany United States personnel to the U. S. Naval Base at Guantanamo Bay, Cuba.

Dependents of U. S. personnel already in Cuba will depart gradually during the next two years.

Here's what this announcement means to Navy families now in Cuba, and what to expect with regard to tour lengths at Gitmo.

- Effective 12 Feb 1964, all new assignments to Guantanamo Bay are for one-year "without dependents" tours.

- No dependents already at Guantanamo Bay are being evacuated. Dependents are leaving the base gradually as their Navymen-sponsors are transferred after normal two-year "with dependents" tours.

- No extensions will be granted those now at Guantanamo Bay with dependents. Exceptions to this may apply in cases of families with school age children. (Brief extensions may be granted to afford children an opportunity to finish certain phases of schooling without interruption.)

The new one-year tour for all Navymen assigned to Gitmo minimizes the time those who have dependents must be separated from their families.

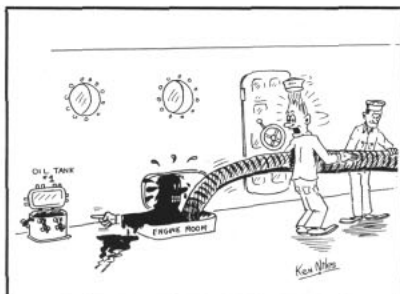
Those without dependents likewise serve for one year, the standard "without dependents" tour at a number of remote stations.

The new tour and dependent withdrawal rulings apply to all U. S. personnel assigned to Guantanamo Bay, including civilians.

Within the next six months, approximately 800 of the 3000 dependents (military and civilian) now at the base will have returned to the U. S. under the phasing out. All dependents will have departed by early 1966.

Last dependents to leave will be those who arrived shortly before the new order was issued, and became effective, on 12 Feb 1964..

All-Navy Cartoon Contest  
Kenneth O. Niles, RMC, USN



"Not here stupid—back there!"

## Three New and Four Revised Correspondence Courses Ready

Seven correspondence courses have been issued and are available through the Naval Correspondence Course Center, Scotia, N.Y. Of the seven, four are revised courses and three are new issues. The seven are:

- OCC *Public Works Department Management*, NP 10741-A (supersedes NP 10741).

- OCC *Refresher Course for Meteorologists*, NP 10953-A (supersedes *Refresher Course for Aerologists*, NP 10953).

- OCC *Oceanography in ASW*, NP 10418 (Confidential).

- ECC *Radioman 1 & C*, NP 91405-3 (supersedes NP 91405-2).

- ECC *Sonarman (S) 3 & 2*, NP 91259-3 (Confidential).

- ECC *Communications Technician (I) 3 & 2*, NP 91572 (Confidential).

- ECC *Utilitiesman 3 & 2*, NP 91594-2 (supersedes NP 91594-1A).



"Where do you do your fishing?"

## Here's Report on Navy Facilities to Be Closed And Workloads Shifted

Several naval installations will shift their workloads—and some personnel—to different locations during the next three and one half years. The changes are the result of Department of Defense economy measures which will call for discontinuation or reduction of 33 defense installations.

However, only six stateside Navy installations are included. Most of the changes scheduled for the Navy will consist of the suspension of work at some facilities and increased operations at others.

The largest change for the Navy will be the shift of ship repair work from the Naval Repair Facility, San Diego, Calif., to the Long Beach Naval Shipyard at Long Beach, Calif. This workload transfer will be completed in January 1965, after a one year phasing-out period.

Litchfield Park Naval Air Facility in Arizona, where Navy planes have been preserved since the end of World War II, and the Navy Storage Activity Stockton Annex, Stockton, Calif., will be closed. Preservation operations for Navy aircraft, however, will continue at a different location. After a three year phasing-out period ending in June 1967, Navy aircraft will be mothballed with Air Force inactivated aircraft at Davis-Monthan Air Force Base in Tucson, Ariz. The Stockton Navy Storage Activity will be closed by December 1965, but the Stockton communications station at the same location will remain in operation.

Other Navy installations scheduled for closure after relocation of workloads are the Navy Forms and Publications Supply Office at Byron, Ga., and the Navy Training Device Center at Port Washington, N.Y. The Training Device Center will shift to former Mitchel Air Force Base, N.Y., now the Federal Center, and the responsibilities held by the Publication Supply Office will be transferred to the Naval Supply Depot, Philadelphia, Pa., by September 1964.

The Naval Air Facility at Eliza-



beth City, N. C., where 25 Navymen are stationed, will be inactivated by January 1965.

The Defense Department's economy measures are a result of a 1963 review of the military base system. It was found that changes in weapons systems, organizational structure, and supply management concepts had reduced the need for some facilities. Also, reductions in inventory achieved through more precise determination of requirements and increased utilization of excess material in lieu of new procurement have freed the working capacity at major depots.

As a result, workloads at some facilities can be redistributed to other, more modern and efficient installations to save personnel and overhead costs.

### Incorrect Social Security Numbers Can Give Finance Center (and You) Headache

When Navymen were placed under the provisions of the Social Security Act in 1957, the Navy Finance Center at Cleveland, Ohio, began having problems, for it receives thousands of pay records each year with incorrect or missing Social Security numbers.

Since the numbers are needed for crediting the proper accounts with taxes withheld, the Finance Center must spend considerable time, money and effort in tracking them down.

Requests for missing numbers are sent to disbursing officers twice a year by the Finance Center, when closed pay records are compared with the flimsy copies of newly opened ones. Navy Regional Finance Centers issue similar requests. In most cases it is still necessary to send follow-up notices.

Much of this work could be eliminated if disbursing offices followed directions on obtaining Social Security numbers, either from the individual or the Social Security Administration. These instructions are contained in paragraphs 044433-9b and -9c of the Navy Comptroller Manual.

Besides fighting the problem of the missing numbers, the Finance Center must tackle some 30,000 cases a year involving incorrect Social Security numbers. In each of these cases the

center must send out a request to the local disbursing officer, asking him to examine the individual's Social Security account card and correct the error. If this request brings no reply a follow-up notice must be sent.

In some cases, the disbursing officer responds to this by sending back the same number that's on the individual's pay record, even though this is known to be incorrect. Needless to say, this creates additional correspondence for the Finance Center, which has to send the disbursing officer a request for a recheck—and perhaps—a follow-up to that request.

Meanwhile, back at the Finance Center, there's another cycle of cor-

respondence between the Center and the Social Security Administration.

Many of these headaches can be cured at income tax time, when you, the man in the Fleet, receive your Statement of Taxes Withheld (Form W-2). All you have to do is check the W-2 against your Social Security card and, if there is a mistake on the W-2, let your disbursing office know about it. Or, if you've just recently been assigned a Social Security number, you can make sure the disbursing office also has a record of it.

After all, who wants his Social Security withholdings credited to someone else's account?

## HOW DID IT START

### Floating Drydocks

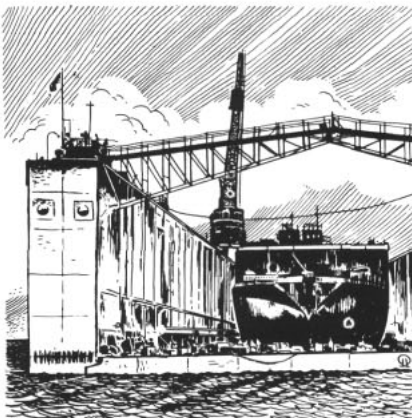
An ingenious English ship's captain built the first floating drydock during the reign of Peter the Great, about 1700.

There was nothing fancy about this first dock on record, but it worked well. His ship in serious need of hull repairs, and with no nearby facilities for careening (tilting a ship on its side), the captain bought an old hulk which he gutted completely and fitted with a watertight stern gate.

He then filled the hulk with water, berthed his ship inside, and pumped the water out so that his crew could make the necessary repairs.

This type of dock was used, off and on, for the next 150 years. It was known as a camel dock, after the name of the hulk bought by the English captain.

The first floating drydock to be built specifically as such was launched in 1785. This type of floating drydock, built of timber, lasted for a surprisingly long time. The 1785 dock is known to have been in use at least 44 years after its launching.



The next step in the evolution of the floating drydock came in 1809, when a patent was granted for an iron dock, with hollow sides for added buoyancy. However, 39 years passed before the first hollow drydock was actually constructed in 1848 (of timber).

About 1866 an iron dock was built by James Campbell in Bermuda. It held the "largest" record for many years and remained in use until 1905. Campbell's dock was 381 feet long and had a lifting capacity of 10,000 tons.

From time to time any floating vessel must be hauled out of the water for repainting, or its bottom will rust away. So, with the construction of iron floating drydocks, came a perplexing problem which, at first, seemed without a solution.

The problem? No drydock was large enough to dock a floating drydock.

Consequently, the first of the self-docking drydocks were built soon after the advent of metal docks. These consisted of several sections, any one of which could be lifted out of the water by the other sections.

Improvements continued to be made and, during World War I, the floating drydocks proved their worth in conducting on-the-spot hull repairs in forward areas.

The granddaddy of all floating drydocks was built by the Navy at Pearl Harbor and launched in July 1943. Designated AFDB 1, it was 927 feet long and could drydock an Essex-class aircraft carrier. AFDB 2, of the same size, was built soon after and was followed by five other, smaller, AFDB's. AFDB number seven is the only one of the class still in use today. The others are part of the inactive fleet.

Smaller floating drydocks, however, are presently used throughout the Fleet to drydock submarines, destroyers and smaller ships.

## DIRECTIVES IN BRIEF

This listing is intended to serve only for general information and as an index of current Alnavs as well as current BuPers Instructions, BuPers Notices, and SecNav Instructions that apply to most ships and stations. Many instructions and notices are not of general interest and hence will not be carried in this section. Since BuPers Notices are arranged according to their group number and have no consecutive number within the group, their date of issue is included also for identification purposes. Personnel interested in specific directives should consult Alnavs, Instructions and Notices for complete details before taking action.

Alnavs apply to all Navy and Marine Corps commands; BuPers Instructions and Notices apply to all ships and stations.

### Instructions

No. 1210.12 - Provides information regarding application for change of designators by temporary and Reserve officers on active and inactive duty.

No. 1301.34B—Contains new instructions concerning the Officer Data Card (NavPers 2626).

No. 1501.98—Specifies an additional eligibility requirement for first enlistment personnel wishing to attend the MK-68 Fire Control System Class "C" course.

No. 1520.88A—Describes the procedures whereby interested officers may apply for assignment to the naval nuclear power training program which convenes quarterly at the nuclear power schools at Bainbridge and Mare Island.

No. 4650.14 - Establishes procedures for arranging transportation for military personnel traveling under official orders from the United States to overseas destinations including Alaska, Hawaii and units employed overseas.

### Notices

No. 1710 (10 January)—Provided detailed information necessary to the conduct of the 1964 All-Navy sports championships.

No. 1540 (15 January)—Provided advance information on a forthcoming change to the *BuPers Manual* relative to the designation and tenure of qualification for Explosive Ordnance Disposal personnel.

No. 1306 (16 January) - Announced the sea duty commencement cutoff dates which establish the eligibility of enlisted personnel for Seavey Segment 2-64 and announced new shore tour lengths for personnel in certain Segment Two rates who

All-Navy Cartoon Contest  
Peter A. Hansen, EN1, USN



"Uh hum—and how long have you had this feeling of being an aircraft carrier?"

will commence their shore tour on or after 1 October.

No. 1221 (17 January)—Alerted commands to the March distribution of the *Manual of Navy Enlisted Classifications* (NavPers 15105 F) which replaces NavPers 15105E.

No. 1710 (20 January) - Described qualifications for the 1964 CISM Pentathlon.

No. 1700 (22 January) - Announced the ninth All-Navy comic cartoon contest.

No. 1520 (24 January)—Solicited applications from USN and Marine Corps officers and midshipmen of the Naval Academy for Navy sponsorship in the December 1964 Rhodes Scholarship competition.

No. 1531 (24 January)—Provided authority to nominate enlisted USN personnel and USNR personnel on active duty to participate in the Navy-wide examination for assignment to the Naval Preparatory



"Boy, this physical fitness program really works!"

School as candidates for appointment to the Naval Academy.

No. 1520 (29 January)—Invited eligible junior officers to apply for Navy flight training.

## List of New Motion Pictures Available to Ships and Overseas Bases

The latest list of 16-mm feature movies available from the Navy Motion Picture Service is published here for the convenience of ships and overseas bases.

Movies in color are designated by (C) and those in wide-screen processes by (WS).

*55 Days at Peking* (2518) (C) (WS): Drama; Charlton Heston, Ava Gardner.

*The Running Man* (2519) (C) (WS): Melodrama; Laurence Harvey, Lee Remick.

*Under the Yum Yum Tree* (2520) (C): Comedy; Jack Lemmon, Carol Lynley.

*My Son the Hero* (2521) (C): Adventure Drama; Pedre Armendariz, Jacqueline Sassard.

*Branded* (2522): Action Drama; Alan Ladd, Mona Freeman.

*Fortunes of Captain Blood* (2523): Adventure Drama; Louis Hayward, Patricia Medina.

*Off Limits* (2524): Comedy; Bob Hope, Marilyn Maxwell.

*The Golden Hawk* (2525): Drama; Rhonda Fleming, Sterling Hayden.

*Hell's Island* (2526): Drama; John Payne, Mary Murphy (Re-Issue).

*Incendiary Blonde* (2527): Betty Hutton, Arturo De Cardona (Re-Issue).

*State of the Union* (2528): Spencer Tracy, Katherine Hepburn (Re-Issue).

*Assignment Paris* (2529): Dana Andrews, Marta Toren (Re-Issue).

*Rogues Regiment* (2530): Dick Powell, Marta Toren.

*My Favorite Spy* (2531): Bob Hope, Hedy Lamarr.

*Palm Springs Weekend* (2532) (C): Troy Donahue, Connie Stevens.

*Cavalry Command* (2533) (C): John Agar, Richard Arlen.

*Warpath* (2534): Edmond O'Brien, Dean Jagger (Re-Issue).

*Shane* (2535): Alan Ladd, Jean Arthur (Re-Issue).

*Act of Murder* (2536): Edmond

O'Brien, Frederic March (Re-Issue).

*A Connecticut Yankee in King Arthur's Court* (2537): Bing Crosby, Rhonda Fleming (Re-Issue).

*Who's Minding the Store* (2538) (C): Jerry Lewis, Jill St. John.

*Gunhawk* (2539) (C): Rory Calhoun, Rod Cameron.

*Tomorrow at Ten* (2540): John Gregson, Robert Shaw.

*Strait Jacket* (2541): Joan Crawford, John Anthony Hayes.

*Any Number Can Win* (2542) (WS): Jean Gabin, Alain Delon.

*Summer Holiday* (2543) (C) (WS): Musical; Cliff Richard, Laurie Peters.

*Lassie's Great Adventure* (2544) (C): Hugh Reilly, June Lockhart.

*Stolen Hours* (2545) (C): Drama; Susan Hayward, Diana Baker.

*Going My Way* (2546): Drama; Bing Crosby, Barry Fitzgerald (Re-Issue).

*Let's Dance* (2547): Musical Comedy; Betty Hutton, Fred Astaire (Re-Issue).

*Appointment with Danger* (2548): Action Drama; Alan Ladd, Phyllis Calvert (Re-Issue).

*The Exile* (2549): Melodrama; Maria Montez, Henry Daniell (Re-Issue).

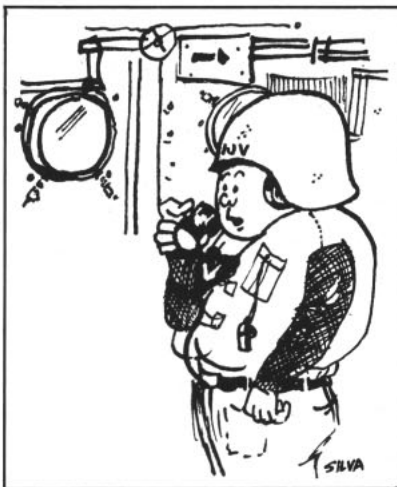
### Courses Offered to Qualified Officers in Field of Communications Engineering

For the first time, officers will soon have the opportunity to pursue Navy education in communications in a three-year graduate level program leading to a master's degree in communications engineering. This is made possible through extension of the present two-year Communications Engineering curriculum at the U. S. Naval Postgraduate School, Monterey, Calif. to include a third year of instruction.

With the communications field becoming increasingly complex, the Navy needs highly educated communications engineers with strong backgrounds in management and analysis, as well as in engineering. The new program is designed to produce these specialists.

The highest level of Navy education in this field at present is the two-year postgraduate course in communications, administered by the Postgraduate School, which offers a

R. L. Silva, PN3, USN



"Deposit \$2.60 for the next three minutes, please."

bachelor of science degree in communications engineering. This course of instruction was begun in 1959.

The first class to pursue the three-year curriculum will consist of approximately 10 officers. They will be selected from among those officers who enrolled in the two-year communications engineering curriculum, August 1963 class.

Their selection will be based on academic capability as well as their

availability for an extra year at the Postgraduate School. Those officers selected will remain under instruction at the Postgraduate School until June 1966. The third year will include study in: engineering electronics; computer technology and programming; management and operations analysis and various other subjects.

Preliminary evaluation indicates that 34 billets currently require graduate communications engineers. Those engineers with advanced education will be utilized in billets involving systems plans, shore and fleet systems requirements, shore programs (new construction), communications material, compatibility engineering, and systems facilities and installations, as well as billets approved for the Defense Communications Agency.

The new three-year graduate curriculum in Communications Engineering was approved by the Chief of Naval Personnel subsequent to justification of the need by the Director, Naval Communications at the 1963 annual Postgraduate Conference, held at Monterey in August.

Officers who sub-specialize in communications will receive full opportunity to reach line command.

### Navy Men Are Old Hands at New Languages

Foreign language training for Navy men is nothing new. Records of Navy men studying foreign language as part of their duties go back many years. However, it wasn't until World War II that language training for the Man in the Fleet got underway on a large scale.

From 1923 to 1940, a small group of Regular Navy and Marine Corps officers were trained in Japanese or Chinese, at schools in the Orient. Both courses were extensive, requiring three years of study.

In September 1941, the Navy started its own Japanese language courses at Harvard and the University of California. These were later consolidated to form the Naval School of Oriental Languages at the University of Colorado.

In 1944, Chinese, Russian and Malay were added, and in April 1945, an additional Naval School

of Oriental Languages was established at Oklahoma A & M.

Between 1941 and 1946, approximately 1250 language officers were graduated in Japanese, Chinese, Russian and Malay, and the time of all courses was shortened by highly intensive training methods. For example, the three years of study previously required to master Japanese was shortened to one.

Thus, according to Navy language officials, the Navy pioneered the "cram" method of teaching foreign languages.

In 1946, the Naval Intelligence School was established in Washington, D. C., and language training for Navy men was shifted to the Intelligence School.

The Navy Language School remained under Naval Intelligence until 1 July 1963, when it was officially absorbed by the Defense Language Institute.



# This Is Sure to Keep You in Touch with Your Home State

**C**ERTAIN STATES, territories and possessions of the United States have their own income tax laws under which you may have liabilities in addition to the federal income tax (discussed in the December 1963 issue). Below, you will find a summary of the requirements of the local income tax laws, as prepared by the Office of the Judge Advocate General.

You should note that unless your state makes a special exception, members of the armed forces are not excused from state and local income taxes merely because they are on active duty.

Generally speaking, your liability for state and local income and personal property taxes (but not real property taxes such as on your home) is determined on the basis of the laws of your domicile or legal residence, sometimes referred to as your home state or the state of which you are a citizen or inhabitant.

Most state taxes are based on actual residence or presence in the jurisdiction and for this reason the Soldiers' and Sailors' Civil Relief Act is important to you. Although it protects you from taxation by a state of which you are not a resident, it does not relieve you from liability for taxes to your home state. There is no exemption by reason of being in the naval or military services unless your home state law provides such.

Active service personnel are pro-

All-Navy Cartoon Contest  
LTJG Paul T. Nagano, SC, USN



"Oh that?—It's the disbursement officer back from his money run."

tected to the extent provided by the Soldiers' and Sailors' Civil Relief Act. This Act provides that, for the purpose of taxation of your individual income and personal property, including your automobile, if you are absent from your place of legal residence or domicile solely by reason of compliance with military or naval orders, you will not be considered to have become a resident of any other state or possession of the United States while so absent.

In this situation your active service pay and personal property are exempt from taxation in the state in which you are serving but they retain their taxable status in your home state. So is your automobile, if the

license, fee or excise imposed by your home state is paid.

There is no tax exemption under the Act for retired and retainer pay; your wife's income, property, or automobile; or income from a business, rental property or other source, such as part-time employment, in the state in which you are living by reason of active duty orders.

In many cases, tax authorities have taken the position that a serviceman has abandoned his original domicile when there is a showing that the right to vote in his home state has not been exercised and that a home state's income taxes, if any, have not been paid.

Because of this, it is much easier to substantiate your domicile in your home state if the required taxes have been paid, your voting privilege has been exercised and other ties to the home state, such as automobile license plates and operator's permit have been kept current while you are on active duty.

Below you will find a summary of the salient features of the income tax laws for the calendar year 1963 of the states and possessions of the United States. It primarily indicates the requirements for the filing of income tax returns by servicemen who are residents of jurisdictions having income tax laws; personal exemptions and tax credit allowed; and dates for filing and paying taxes.

## SUMMARY OF INCOME-TAX LAWS OF STATES AND POSSESSIONS OF THE UNITED STATES

**NOTE:** 1. "Married couple" or "married" as used in this summary means husband and wife living together.

2. A married serviceman or woman is considered to be living with his or her spouse when separated only by reason of military orders.
3. "—" indicates provisions for declaration and payment of estimated taxes.
4. The following states do not impose individual income taxes on residents generally: Connecticut, Florida, Illinois, Maine, Michigan, Nebraska, Nevada, New Jersey, Ohio, Pennsylvania, Rhode Island, South Dakota, Texas, Washington, and Wyoming. New Jersey imposes a "commuter tax."
5. Under section 513 of the Soldiers' and Sailors' Civil Relief Act (50 USC App. 573) a member may defer payment of taxes without interest or penalty, until 6 months after discharge if ability to pay is materially impaired by reason of active service. Returns must be filed on time, however.

Lowest Amount Of Income Which Requires Residents to File Returns	Personal Exemptions and Tax Credits	Due Date for Return and Payments	Title and Address of Taxing Authority	Exclusions and Deferrals for United States Armed Forces Personnel
<b>*ALABAMA:</b>				
Net income of: \$1500 if single, \$3000 if married or head of family.	\$1500 if single, \$3000 if married or head of family, \$300 for each dependent.	Return and payment due 15 April.	State Department of Revenue, Income Tax Division, Montgomery 2, Ala.	Members outside continental United States may defer filing until 30 days after they return to the U. S.

<i>Lowest Amount Of Income Which Requires Residents to File Returns</i>	<i>Personal Exemptions and Tax Credits</i>	<i>Due Date for Return and Payments</i>	<i>Title and Address of Taxing Authority</i>	<i>Exclusions and Deferments for United States Armed Forces Personnel</i>
<b>*ALASKA:</b>				
Gross income of \$600 from sources within the state.	Same as federal.	Return and payment due 15 April.	Department of Revenue, Alaska Office Building, Juneau, Alaska.	All active-service pay exempt after 1950.
<b>ARIZONA:</b>				
Net income of: \$1000 if single, \$2000 if married. Gross income of \$5000.	\$1000 if single; \$2000 if married or head of household; \$500 additional if blind; \$1000 if 65 or older; \$600 for each dependent.	Return due 15 April. Payment with return or in three equal installments.	Arizona State Tax Commission, Income Tax Division, State House, Phoenix, Arizona.	\$1000 active-service pay is exempt. Members outside continental United States may defer filing and paying, without interest or penalty, until 180 days after release or termination of present emergency, whichever is earlier.
<b>ARKANSAS:</b>				
Gross income of: \$1750 if single or separated from spouse, \$3500 if married or head of family.	Tax credit of \$17.50 if single, \$35 if married or head of family, \$6 for each dependent.	Return due 15 May. Payment with return or in two equal installments.	State of Arkansas, Department of Revenue, Little Rock, Ark.	All active-service pay is excluded.
<b>**CALIFORNIA:</b>				
Net income of \$1500 if single or head of household, \$3000 if married.	\$1500 if single, \$3000 if married or head of household, \$600 for each dependent, \$600 additional for taxpayer and spouse if blind.	Return due 15 April. Payment with return.	State of California, Franchise Tax Board, 1025 P Street Sacramento 14, Calif.	\$1000 active-service pay and all mustering-out and terminal leave payments received after 1 July 1952 are exempt. Filing and paying deferred without penalty or interest until 180 days after return to the U.S. from duty outside the 50 States.
<b>**NOTE:</b> Domicile of service wife, if not a Californian, does not follow that of husband for tax purposes until both return to state. Attach statement explaining the residence status of wife.				
<b>*COLORADO:</b>				
Gross income of \$750.	\$750 for taxpayer; \$750 for spouse; \$750 additional for taxpayer and spouse if blind, 65 or older, \$750 for each dependent.	Return and payment due 15 April.	State of Colorado, Department of Revenue, State Capitol Annex, Denver 2, Colorado.	\$2000 of active or reserve duty pay excluded during war or national emergency; \$1000 during other times. (\$2000 applies in 1963) Returns and payment of tax deferred without penalty or interest until year after separation.
<b>*DELAWARE:**</b>				
Gross income of: \$600 if single or separated from spouse, \$1200 combined gross income of married couple.	\$600 for taxpayer; \$600 for spouse; \$600 for each dependent; \$600 additional for taxpayer and spouse if blind or 65.	Return and payment due 30 April.	State of Delaware, State Tax Department, 843 King Street, Wilmington 99, Del.	Deferment for filing and paying may be granted upon application, until six months after discharge.
<b>**NOTE:</b> §1101(7) of the Delaware Income Tax Law provides in part: " 'Resident' means only natural persons and includes any person domiciled in the state, except a person who, though domiciled in the state, maintains no permanent place of abode within the state, but does maintain a permanent place of abode without the state, and who spends in the aggregate not to exceed 30 days of the taxable year within the state; . . . "				
<b>*DISTRICT OF COLUMBIA:</b>				
Gross income in excess of \$1000 if single or separated from spouse, \$2000 combined income of married couple.	\$1000 if single or separated from spouse; \$2000 if married; \$1500 if head of family; \$500 for each dependent; \$500 additional for taxpayer and spouse if blind or 65.	Return and payment due 15 April.	District of Columbia, Finance Office, Revenue Division, Municipal Center, 300 Indiana Ave., N.W., Washington 1, D. C.	Upon application, deferment for filing or paying granted members outside the United States until six months after the return is due; one year for members outside conus.

## THE BULLETIN BOARD

Lowest Amount Of Income Which Requires Residents to File Returns	Personal Exemptions and Tax Credits	Due Date for Return and Payments	Title and Address of Taxing Authority	Exclusions and Deferments for United States Armed Forces Personnel
<b>*GEORGIA:</b>				
Gross income of \$1500 if single or separated from spouse. \$3000 combined gross income of married couple.	\$1500 if single; \$3000 if married or head of family; \$600 for each dependent (except one for head of family); \$600 additional for taxpayer and spouse if blind or 65.	Return and payment due 15 April.	Department of Revenue, Income Tax Unit, State Office Building, Atlanta 3, Georgia.	Deferment for filing or paying without penalty or interest granted members outside continental U. S. until 6 months after return to the U. S.
<b>*GUAM:</b>				
Same as federal.	Same as federal.	Same as federal.	Division of Revenue and Taxation, Department of Finance, Government of Guam, Agana, Guam.	Same as federal, however, as to service compensation, the government of Guam in practice has not imposed the Guam income tax on individuals subject to US income tax.
<b>*HAWAII:</b>				
Gross income of \$600 (\$1200 if 65 or older) from sources within the state.	Same as Federal except \$5000 in lieu of normal exemption for blind taxpayer.	Net income tax: Return and payment due 20 April.	Hawaii Director of Taxation, 425 Queen St., Honolulu 13, Hawaii.	All service pay excluded.
<b>IDAHO:</b>				
Gross income of \$600 (\$1200 if 65 or older).	Same as federal.	Return and payment due 15 April.	State of Idaho Office of Tax Collector, Income Tax Division, State Capitol Building, Boise, Idaho.	Same as federal, except if outside the continental United States may defer filing and paying until 6 months after discharge.
<b>*INDIANA:</b>				
— Gross income tax 1 Jan-30 Jun 1963 for individuals —				
Gross income in excess of \$1000. Joint returns not permitted.	\$1000 for each taxpayer.	Return and payment due 31 January; or quarterly if over \$25 any quarter.	Indiana Department of State Revenue, Gross Income Tax Division, State Office Building, 100 N. Senate Avenue, Indianapolis 4, Ind.	All active and inactive service pay is exempt. Returns and payment of tax deferred until 6 months after discharge or end of hostilities, whichever is earlier.
— Adjusted gross income tax effective 1 July 1963 (1963 rates are 1/2 of full year rate) —				
Gross income in excess of \$1000.	\$1000 for taxpayer on separate return; Lessor of \$1000 or adjusted gross income of each spouse (minimum of \$500 each) on joint return. \$500 additional for taxpayer and spouse if blind, 65 or older; \$500 for each dependent.	Return and payment due 15 April.	Indiana Department of State Revenue, Gross Income Tax Division, State Office Building, 100 N. Senate Avenue, Indianapolis 4, Ind.	Same as federal.
<b>IOWA:</b>				
Net income of \$1500 or more if single or separated from spouse; \$2350 or more if married, or married couple with combined net income of \$2000 or over if filing separate return.	Tax credit of: \$15 if single, \$30 if married or head of family, \$7.50 for each dependent; \$15 additional if blind or 65.	Return due 30 April. Payment with return or in two equal installments if over \$50.	State Tax Commission, Income Tax Division, State Office Building, Des Moines 19, Iowa.	No service pay exemption. 90 day extension granted upon timely application with additional time for good cause.



<i>Lowest Amount Of Income Which Requires Residents to File Returns</i>	<i>Personal Exemptions and Tax Credits</i>	<i>Due Date for Return and Payments</i>	<i>Title and Address of Taxing Authority</i>	<i>Exclusions and Deferments for United States Armed Forces Personnel</i>
<b>KANSAS:</b>				
Net income of: \$600 if single or separated from spouse, \$1200 if married. (Plus age and blind exemptions.) Gross income of \$4000.	Same as federal except that \$600 income limitation applies to child of any age unless a student.	Return due 15 April. Payment with return or in two equal installments if tax is more than \$200.	State of Kansas Director of Revenue, Income Tax Division, State Office Building, Topeka, Kansas.	\$1500 active-service pay excluded from gross income until the termination of the present world crisis as determined by the Executive Council of the State.
<b>* KENTUCKY:</b>				
Net income of: \$1000 if single or separated; \$2000 if married, head of household, blind, or age 65. Gross income of \$1200 and \$2500 respectively.	Tax credit of: \$20 for taxpayer, \$20 for spouse, \$20 for each dependent, \$20 additional for taxpayer and spouse if 65 or blind.	Return and payment due 15 April.	Commonwealth of Kentucky, Department of Revenue, Frankfort, Ky.	None.
<b>* LOUISIANA:</b>				
Net income of: \$2500 if single or separated from spouse, \$5000 if married. Gross income of \$6000 or more.	\$2500 if single, \$5000 if married or head of family, \$400 for each dependent (except one for head of family). Plus \$1000 per person, including dependents, who are blind, mentally retarded or have lost a limb.	Return and payment due 15 May.	State of Louisiana, Collector of Revenue, Baton Rouge 1, La.	None.
<b>* MARYLAND:</b>				
Gross income in excess of: \$800 if single, \$1600 if married.	\$800 if single; \$1600 if married; \$800 each dependent, (including one under a multiple support agreement); \$800 if blind, 65 or older, also for dependents 65 or older.	Return and payment due 15 April.	State of Maryland, Comptroller of the Treasury, Income Tax Division, Annapolis, Maryland.	\$1500 of active-service pay excluded during time of war and prior to cessation of hostilities or while in a combat zone. (No exclusion in 1963) Members outside continental United States may defer filing until 3 months after return to the U. S.
<b>* MASSACHUSETTS:</b>				
Earned income of \$2000. Other taxable income in any amount.	\$2000 for taxpayer against earned income, \$500 for spouse having income of \$2000 or less, \$400 for each dependent, \$2000 additional for taxpayer and spouse if blind.	Return and payment due 15 April.	The Commonwealth of Massachusetts, Department of Corporations and Taxation, Income Tax Bureau, 14 Court Square, Boston 8, Mass.	If requested and if for due cause, an extension of time for filing may be granted up to 6 months.
<b>* MINNESOTA:</b>				
Gross income in excess of \$750 if single or head of household, \$1500 combined income of husband and wife if married.	Tax credits of \$10 if single, additional \$10 if blind, 65 or older; \$30 if married, additional \$15 if blind, 65 or older; \$30 if head of household, additional \$10 if blind, 65 or older; \$15 for each dependent.	Return due 15 April. Payment of balance due in full with return.	State of Minnesota, Department of Taxation, Income Tax Division, Centennial Office Bldg., St. Paul 1, Minn.	\$3000 active service or Reserve duty pay excluded, plus mustering out pay. Members outside CONUS for more than 90 days may defer filing and paying until six months after return.
<b>MISSISSIPPI:</b>				
Net income in excess of personal exemptions. Gross income in excess of \$6000.	\$5000 if single, \$7000 if married or head of family.	Return due 15 April. Payment with return or in four equal installments.	State Tax Commission, Income Tax Division, Box 960, Jackson, Miss.	None.

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Lowest Amount Of Income Which Requires Residents to File Returns	Personal Exemptions and Tax Credits	Due Date for Return and Payments	Title and Address of Taxing Authority	Exclusions and Deferments for United States Armed Forces Personnel
<b>*MISSOURI:</b>				
Gross income of \$1200 if single, \$2400 if married or head of family.	\$1200 if single, \$2400 if married or head of family, \$400 for each dependent.	Return and payment due 15 April.	State of Missouri, Department of Revenue, Income Tax Department, P.O. Box 329, Jefferson City, Mo.	\$3000 of active-service pay exempt after 1950. Director of Revenue may allow extension of time for filing without penalty or interest until one year after discharge.
<b>*MONTANA:</b>				
Gross income of \$600 if single, \$1200 if married.	\$600 if single; \$1200 if married; \$600 for each dependent; \$600 additional for taxpayer and spouse if blind or 65.	Return and payment due 15 April.	State of Montana, Board of Equalization, State Capitol Building, Helena, Mont.	None.
<b>NEW HAMPSHIRE:</b>				
Any amount of taxable interest or dividends. Joint returns not permitted.	\$600 for each taxpayer.	Return and payment due 1 May.	State Tax Commission, Division of Interest and Dividends, Box 345, Concord, N.H.	None.
<b>NEW JERSEY:</b>				
Gross income in excess of personal exemptions if derived from N. J. by N. Y. resident.	Same as federal, plus tax credit of: \$10 if single; \$12.50 if married and filing separately; \$25 if married and filing jointly, or head of household.	Return and payment due 15 April.	New Jersey State Emergency Transportation Tax Bureau, Division of Taxation, Trenton 25, N. J.	All active service pay exempt. Persons in active service with the armed forces of the United States who may be prevented, by distance or injury, or hospitalization arising out of such service, may be allowed an extension of six months for filing.
<b>NEW MEXICO:</b>				
If federal income tax return is required to be filed.	Same as federal.	Return due 15 April. Payment with return or in four equal installments.	State of New Mexico, Bureau of Revenue, Income Tax Division, P.O. Box 451, Santa Fe, N. M.	None.
<b>*NEW YORK:**</b>				
If federal income tax return is required to be filed or if New York adjusted gross income exceeds exemptions.	Same as federal, plus tax credit of: \$10 if single, \$12.50 if married and filing separate returns, \$25 if married and filing joint return; head of household or surviving spouse with a dependent child.	Return and payment due 15 April.	New York State Income Tax Bureau, Gov. A. E. Smith State Office Building, Albany, N. Y. 12225	None, except as provided in Sec. 605(a) of N. Y. Income Tax Law quoted below for members who satisfy all three conditions therein. N. Y. instructions state that living in government quarters is not maintaining a permanent place of abode.
<b>**NOTE:</b> Sec. 605(a) of the New York State Income Tax Law provides in part: "A resident individual means an individual: (1) who is domiciled in this state, unless he maintains no permanent place of abode in this state, (2) maintains a permanent place of abode elsewhere, and (3) spends in the aggregate not more than thirty days of the taxable year in this state, * * *				
<b>*NORTH CAROLINA:</b>				
Gross income of \$1000 if single or a married woman with separate income, \$2000 if a married man. Gross income from business or profession in excess of personal exemption.	\$1000 if single or a married woman, \$2000 if married man or head of a household, \$2000 if widow or widower with minor child, \$300 for each dependent, \$1000 additional to blind taxpayer.	Return due on or before 15 April. Payment with return for any portion not paid in advance by withholding or estimated taxes.	State of North Carolina, Department of Revenue, Individual Income Tax Division, Raleigh, North Carolina.	None.

<i>Lowest Amount Of Income Which Requires Residents to File Returns</i>	<i>Personal Exemptions and Tax Credits</i>	<i>Due Date for Return and Payments</i>	<i>Title and Address of Taxing Authority</i>	<i>Exclusions and Deferments for United States Armed Forces Personnel</i>
<b>NORTH DAKOTA:</b>				
Net income of \$600 if single or separated from spouse, \$1500 if married or head of household. Gross income of \$5000.	\$600 if single; \$1500 if married or head of household; \$600 for each dependent; \$600 additional for taxpayer and spouse if blind, 65 or older.	Return due 15 April. Payment with return or in installments if tax exceeds \$100.	State of North Dakota Office of Tax Commissioner, State Capitol Building, Bismarck, North Dakota.	All active-service pay is exempt.
<b>OHIO:</b>				
No individual State income tax, but residents of some Ohio cities and municipalities may be liable for local income taxes. Canton, Cincinnati, Columbus, Dayton, Springfield, Toledo and Youngstown exempt all military pay.				
<b>*OKLAHOMA:</b>				
Gross income of \$1000 if single, \$2000 if married.	\$1000 if single, \$2000 if married or head of family, \$500 for each dependent.	Return and payment due 15 April.	Oklahoma Tax Commission, State of Oklahoma, Income Tax Division, Oklahoma City 5, Okla.	\$1500 of active-service pay is excluded. Filing and paying by member outside the United States or hospitalized in the U. S. deferred until 15th day of 3rd month following return or discharge from hospital.
<b>OREGON:</b>				
Net income of \$600 if single, \$1200 if married. Gross income of \$4000.	\$600 if single or separated; \$1200 if married; \$600 additional if blind plus tax credits of \$18 if blind, \$12 if 65; \$600 each dependent. (\$1 tax credit, maximum \$6, each \$100 partial support of less than 50%.)	Return due 15 April. Payment with return or in installments if tax exceeds \$25.	Oregon State Tax Commission, Income Division, 100 State Office Bldg., Salem, Ore.; or State Tax Commission, 1400 S. W. 5th Avenue, Portland 1, Ore.	\$3000 of active-service pay is excluded. Returns and payment of tax deferred for 90 days after return to U. S. from period of duty exceeding 90 days outside continental United States.
<b>PENNSYLVANIA:</b>				
No individual income tax, but residents of some Pennsylvania cities and municipalities may be liable for local income taxes. Philadelphia and Pittsburgh exempt all Navy and military pay.				
<b>*PUERTO RICO:</b>				
Gross income in excess of \$800 if single, separated from spouse or if head of family, \$2000 if married and living with spouse.	\$800 if single or separated from spouse, \$2000 if married or head of family, \$400 for each dependent.	Return due 15 April. Payment with return or in two equal installments where no declaration of estimated tax was elected.	Commonwealth of Puerto Rico, Department of the Treasury, Bureau of Income Tax, P.O. Box 9833, Santurce, Puerto Rico.	None.
<b>*SOUTH CAROLINA:</b>				
Gross income of \$800 or more.	\$800 if single; \$1600 if married filing jointly or only one spouse has income or if head of household; \$800 additional if blind, 65 or older; \$800 each dependent.	Return and payment due 15 April.	South Carolina Tax Commission, Income Tax Division, Drawer 420, Columbia 1, S. C.	Same computations as for federal return.
<b>TENNESSEE:</b>				
Income over \$25 from dividends and interest.	None, except income of blind persons is exempt.	Return and payment due 15 April.	State of Tennessee, Department of Revenue, Income Tax Division, War Memorial Bldg., Nashville 3, Tennessee.	None.



## THE BULLETIN BOARD

Lowest Amount Of Income Which Requires Residents to File Returns	Personal Exemptions and Tax Credits	Due Date for Return and Payments	Title and Address of Taxing Authority	Exclusions and Deferments for United States Armed Forces Personnel
<b>UTAH:</b>				
Gross income of \$600 if single or separated from spouse, \$1200 if married.	\$600 if single, \$1200 if married, \$600 for each dependent, \$600 additional for taxpayer and spouse if blind.	Return and payment due 15 April.	State Tax Commission of Utah, State Office Building, Salt Lake City 14, Utah.	If in foreign country 510 days of any 18 consecutive months may file as a non-resident for each taxable year while so absent for three months or more.
<b>*VERMONT:</b>				
Gross income of \$500 (\$1000 if 65 or older).	\$500 for taxpayer; \$500 for spouse; \$500 for each dependent; \$500 additional for taxpayer and spouse if blind, 65 or older.	Return and payment due 15 April.	Commissioner of Taxes, Vermont Department of Taxes, Montpelier, Vt.	Same as federal. Members serving outside Vermont may defer paying tax on service pay until six months after discharge.
<b>*VIRGINIA:</b>				
Gross income of \$1000.	\$1000 for taxpayer; \$1000 for spouse; \$200 for each dependent plus \$800 to unmarried taxpayer who has a dependent father, mother, son, daughter, sister, or brother; \$600 additional for taxpayer and spouse if blind, 65 or older.	Return due 1 May. Payment in full, with return to Treasurer of county or city where return is filed.	Commissioner of Revenue of the county or city of which taxpayer is a resident.	None.
<b>*WEST VIRGINIA:**</b>				
If federal return is required, or if West Virginia adjusted gross income exceeds exemptions.	Same as federal.	Same as federal.	West Virginia State Tax Commissioner, Income Tax Division, Charleston 5, West Va.	None except as provided below.
<b>**NOTE:</b> Sec. 7 of West Virginia Income Tax Law provides in part: "Resident individual means an individual who is domiciled in this state unless he maintains no permanent place of abode in this state, maintains a permanent place of abode elsewhere, and spends in the aggregate not more than 30 days of the taxable year in this state, . . ."				
<b>*WISCONSIN:**</b>				
\$1400 combined net income of married couple. Gross income of \$600.	Tax credit of \$10 if single, \$20 if married or head of family, \$10 each dependent. \$15 for taxpayer and spouse if 65 or older.	Return and payment due 15 April.	State of Wisconsin, Department of Taxation, Processing Center, P.O. Box 59, Madison, Wis., 53701.	\$1000 of active-service or reserve pay excluded. Extension of time for filing granted to members on duty abroad until 15th day of sixth month following close of taxable year.
<b>**NOTE:</b> Declarations of estimated tax need not be filed by persons on active duty outside continental United States.				

### These Training Films Will Help Your Career

The latest list of training films available is published here. Those in color are designated (C). Movies in black and white are designated (B&W).

Films available through most FAETU and NARTU film libraries are marked (A). Those that are also available through District, Marine and PIO libraries are designated (G).

All films listed here have sound; some have not been released for gen-

eral distribution and should not be shown to civilian audiences. They are designated (not rel).

*Goblin on the Doorstep:* MC 9938, Documentary on antisubmarine warfare; unclassified. (G), (C), 28 minutes.

*First Aid for Aircrew:* MB-9690, Emergency treatment of hemorrhages, fractures, piercing wounds of chest and abdomen, shock and unconsciousness. One crew member administers to five seriously injured crew members. Unclassified (not rel), (A), (C), 28 minutes.

*Today is Tomorrow:* MN-9997, Encourages eligible naval officers to participate in postgraduate educational program; unclassified (G), (not rel), (C), 21 minutes.

*On the Spot—Survival in the Bush:* MB-9689B; unclassified (not rel), (A), (B&W), 20 minutes.

*Survival—Part 2—Stay Alive in the Summer Arctic:* MH-9689B, unclassified, (not rel), (A), (B&W), 26 minutes.

*Survival—Part 3—Stay Alive in the Summer Bush:* MB-9689C, unclassified, (not rel), (A), (B&W), 25 min.

# BOOKS

## THESE SELECTIONS REFLECT INTERESTS OF OUR TIMES

IT'S INTERESTING to note how the titles selected by the Library Services Branch point up, from month to month, some of the primary interests and concerns (in addition to three basics) of our times. The subjects chosen this month, for example, concern international relations, science in general and space.

Although many of us take such matters more or less in our stride, much credit is due to the most remarkable skills of our present-day authors. They not only handle relatively abstruse subjects with authority, they make them interesting.

Willy Ley with his latest, *Watchers of the Sky*, is a case in point. At the moment we haven't the slightest idea how many science books Mr. Ley has written but, we suspect, they would stretch from here to at least Arcturus. *Rockets, Missiles and Space Travel, Conquest of Space, The Exploration of Mars and Exotic Zoology* is only a representative list. *Watchers* just happens to deal with the history of astronomy which, for the non-mathematical, can be a dreary subject indeed. Not so with Mr. Ley at the helm.

His technique is simple and remarkably effective, although not new. He combines the story of man's knowledge about the skies and their contents with the only too human stories of those who made the discoveries. All the basic facts are here, plus a considerable amount of highly personalized biographical material as well as a fairly complete discussion of well-known and not so well-known astronomical arguments. Some of the technicalities become somewhat involved but they can be skipped if you want to. If you want to know the answers, however, they are to be found here.

*The Universe of Science*, by Charles Noel Martin, is along much the same lines. Martin, however, is not content merely to survey outer space. The entire universe is his beat. His discussion ranges from the infinitely small to the infinitely large, in which he discusses the latest findings of physicists, astronomers, biologists, chemists and geologists. In physics, for example, he discusses atoms and their nuclei; the ultimate

particles at the frontier of the sub-nuclear universe; the strange reactions which operate in these areas; anti-particles; space-time dissymmetry. The other disciplines receive similar coverage. These unfamiliar terms suggest tough going for the reader not familiar with the jargon, but this is not necessarily true.

Strangely enough, the science writers appear to be the most gifted in the art of making a difficult subject look easy. All too often the political and economic writers fail in this respect. You may find Tad Szulc's *The Winds of Revolution* to be a happy exception. It is his thesis that the winds of revolution—economic, social, political—have repeatedly swept over the Western Hemisphere; old tyrants have been toppled and frequently replaced by new. However, these processes have not always resulted in progressive, democratic governments. He suggests some ideas leading toward a solution. Szulc, as you may recall, has covered Latin America for some time for *The New York Times*, so he should know what he's talking about.

*Peking and Moscow*, by Klaus Mehnert, is another account on a subject currently much discussed. The publishers say it is the "definitive" work on the background and present causes of the Sino-Soviet conflict, but as "definitive" is an extremely broad term, we can't commit ourselves. Nevertheless, the author does probe the cultural, historical and ideological differences between the two powers and their

All-Navy Cartoon Contest  
John R. Thornton, SOG2, USN



"Boy, wait till ONI hears about this!"

significance for the West today. He suggests that China is Asia and Russia is basically European and (maybe) never the twain shall meet, regardless of the common interest of Marxism. Only time will tell.

This affair in Vietnam just isn't a sporting sort of war. You'll get the full flavor of the danger, boredom, discomfort and unpleasantness in Richard Tregaskis' *Vietnam Diary*. It should be of specific interest to many Navymen and Marines because, as the story of the first concerted U. S. effort to solve the guerilla problem, it is a story of today's risks and of patterns that are setting a pattern for the future. Tregaskis gives a taste of most aspects—the junk fleet patrolling the seacoast; trips with the Marine helicopters and the Army's H21s; ground forces in the Delta area; and the U. S. fighter pilots accompanying the Vietnamese on their missions. As you know, Tregaskis has just about tied up the diary business in recent years with his *Guadalcanal Diary*, *Invasion Diary*, and *X-51 Diary*. He's more concerned with what actually happens than solving the future problems of the world.

It is refreshing to note one title concerned with the early, relatively uncomplicated, nostalgic seafaring days *Quarterdeck and Fo'c's'le*, edited by James Merrill, consists of a series of letters, essays, eye-witness accounts, ballads, journals, logs and war diaries of the men who made our Navy what it is today. The subjects range from John Paul Jones' description of an encounter with the British *Drake* in 1778 to the world-circling cruise of *Triton*.

The fiction titles this month are pretty much in the escape category. Both *The Grove of the Eagles*, by Winston Graham, and *The Last Raider*, by Douglas Reeman, are sea yarns. *Eagles* is laid in Elizabethan times but has a novel twist. It's not about the Spanish Armada. This is concerned with the *second* Armada. You didn't know there was one, did you? Read the book to learn more about it.

*Raider* is a straight adventure story, centering about the final gesture of defiance on Germany's part during World War I, much along the lines of the famous Count von Luckner. The climax involves much blood, thunder and gore. Well written. The good guys win.

# Astronauts

*Project Mercury will undoubtedly stand as one of the great events in the history of the United States in the 20th century.*

*Project Mercury was accomplished in four and two-thirds years of dynamic activity which saw more than two million people from many major government agencies and much of the aerospace industry combine their skills, initiative and experience into a national effort.*

*It was also one of the most intensive training programs in our history—which accounts in great part for its success.*

*It was largely through the Mercury training program that the first seven astronauts (three from the Navy, one from the Marine Corps and three from the Air Force) were able to achieve their success. A part of that training is described below.*

*The astronaut program of NASA (National Aeronautics & Space Administration) may seem to be somewhat unrelated to the assignment of the average Navyman. However, you may have served in the same ship or squadron with some of the men who recently joined the space program.*

*In the past year, two new groups have been enrolled. In addition to the Navy-Marine and the Air Force team, candidates from civilian life have been accepted. You'll find their names in the box below and on the following*

**D**O YOU RECOGNIZE THESE MEN? They are the latest representatives from the Navy and Marine Corps in the NASA space program.

★ **LT ALAN L. BEAN, USN**, 32 years old, was born in Wheeler, Texas.

Bean's last Navy assignment was with Attack Squadron 44 at Cecil Field, Fla., as an A-4 attack replacement pilot. He was graduated from the Navy Test Pilot School at Patuxent and served as project officer on various aircraft for Navy preliminary evaluation, initial trials, and final board of inspection and survey trials at Patuxent from 1960 to 1963. He also attended the School of Aviation Safety at University of Southern California.

He has more than 2000 hours' flying time, including about 1800 in jet aircraft.

He is five feet 9½-inches tall and weighs 150 pounds. He is married and has two children.

★ **LT EUGENE A. CERNAN, USN**, 30 years old, was born in Chicago, Ill.

He entered the Navy in 1956. Since 1961 he has been a stu-

dent at the U.S. Naval Postgraduate School at Monterey and is currently a candidate for a master of science degree in aeronautical engineering. Before his last assignment he was a member of Attack Squadrons 126 and 113 at Miramar, Calif., Naval Air Station.

He has logged more than 1400 hours' flying time, including more than 1200 hours in jet aircraft.

He is six feet tall, weighs 175 pounds, is married and has one daughter.

★ **LT ROGER B. CHAFFEE, USN**, 29 years old, was born in Grand Rapids, Mich.

He entered the Navy in 1957. His last Navy assignment started in January 1963 as a student at the Air Force Institute of Technology at Wright-Patterson AFB, Ohio, where he is working toward a master of science degree in reliability engineering. Prior to entering AFIT, he was safety officer and quality control officer for Heavy Photographic Squadron 62 at the Jacksonville, Fla., Naval Air Station.

Chaffee has logged nearly 1700 hours' flying time, including more than 1400 hours in jet aircraft.



LT Alan L. Bean, USN



LT Eugene A. Cernan, USN



LT Roger B. Chaffee, USN



LT Charles Conrad, Jr., USN



# Prepare for Space Flight

pages. Seven of those new men in training today are Navymen; two others are former Navymen; one is a Marine and another is a Marine Reservist on inactive duty.

What does it take to be an astronaut? Perhaps the best answer comes from the NASA publication entitled "Mercury Project Summary, including results of the Fourth Manned Orbital Flight." Permission has been received to publish extracts from this report.

**A**STRONAUT job requirements called for individuals with high skill levels, appropriate personality traits and a high level of physical fitness.

In the area of aptitude and ability factors, the individual needed:

- A good engineering knowledge.
- A good knowledge of operational procedures typical of aircraft or missile systems.
- General scientific knowledge and research skills.
- High intelligence.
- Psychomotor skills similar to those required to operate aircraft.

In the area of personality factors, the candidate had to demonstrate:

- Good stress tolerance.
- A good ability to make decisions.

- Ability to work with others under great pressure.
- Emotional maturity.

The physical requirements included:

- Freedom from disease or disabilities.
- A resistance to the physical stress of space flight accelerations, reduced pressure, weightlessness, high temperatures and so forth.
- Medium size so the man could comfortably fit into the relatively small Mercury spacecraft.

The following account from "Results of First U. S. Manned Orbital Space Flight" discusses the preparations that went into a flight into space.

This discussion is limited to the specialized training activities which were conducted subsequent to the selection of the crew for the MA-6 flight. It was written by LCDR M. Scott Carpenter, USN.

**E**ACH SPACECRAFT differs somewhat from its predecessors and a considerable amount of time must be devoted to the study of these differences. The spacecraft familiarization study was accomplished in part by system briefings, conducted by civilian contractors and NASA engineers.

Many hours were spent in formal briefings of this

He is five feet 9½-inches tall, weighs 157 pounds and is married and has two children.

★ **LT CHARLES CONRAD, JR., USN**, 33 years old, was born at Philadelphia, Pa.

He entered the Navy in 1953 and became a naval aviator. His last assignment was as Safety Officer for Fighter Squadron 96, and before that time he was an F4H flight instructor for Fighter Squadron 121, Naval Air Station, Miramar, Calif.

Conrad attended the Navy Test Pilot School at Patuxent River, Md., and from 1959 until 1961 he was a flight instructor and performance engineer at the U. S. Naval Test Pilot School there. He has logged more than 2800 hours' flying time, including 1500 hours in jet aircraft.

He is 5 feet 6½ inches tall and weighs 138 pounds. He is married and has four children.

★ **LCDR RICHARD F. GORDON, JR., USN**, 34 years old, was born in Seattle, Wash.

He entered the Navy in 1951. At the time of his selection as an astronaut he was a student at the U. S. Naval Postgraduate

School at Monterey. He is a graduate of the All-Weather Flight School and the Navy's Test Pilot School. Before entering the Monterey school, he was assigned to Fighter Squadron 96 at the Miramar, Calif., Naval Air Station, where he had served as flight safety officer, assistant operations officer and ground training officer.

He has logged nearly 2800 hours' flying time, with almost 2000 hours in jet aircraft. He won the Bendix Trophy Race from Los Angeles to New York in 1961.

He is five feet 7-inches tall, weighs 150 pounds and is married and has six children.

★ **LCDR JAMES A. LOVELL, JR., USN**, 35 years old, was born in Cleveland, Ohio.

His last Navy assignment was as flight instructor and safety officer in Fighter Squadron 101 at the Naval Air Station at Oceana, Va. From January 1958 until July 1961, he was a test pilot at the Naval Air Test Center at Patuxent River, Md. His work there included service as program manager for the F4H Weapon System Evaluation. He was graduated from the Aviation

(Continued on page 60)



LCDR Richard F. Gordon, Jr., USN



LCDR James A. Lovell, Jr., USN



CAPT Clifton C. Williams, Jr., USMC



LCDR John W. Young, USN

type. Detailed discussion of environmental control, reaction control, automatic stabilization and control, sequential, electrical, pyrotechnic, communications and recovery systems were held in the crew quarters by systems engineers. They were attended by the flight crew and representatives of the NASA Manned Spacecraft Center Training Division.

In addition, many hours of individual study were devoted to the notes and publications which applied specifically to Spacecraft.

A second important activity which contributes to pilot familiarity with the spacecraft is participation, as spacecraft observer, in the many systems checks which constitute the preparation of the spacecraft for flight.

This testing takes place both in the hangar and on the launch pad after mating of the launch-vehicle and spacecraft. A total of over 100 hours was spent in the spacecraft by the flight crew during these tests.

**D**URING THE EARLY PHASES of the training an effort was made to acquire familiarity with the physiological sensations that might be expected during the flight.

At the Naval School of Aviation Medicine, Pensacola, Fla., the flight crew received a refresher course in night vision, and spent periods in the slowly revolving room and in the "human disorientation device."

Studies of the pilot's individual balance mechanisms were made at this time. Since an important objective of the flight was to evaluate the astronaut's tolerance of prolonged periods of weightlessness, studies also were made to provide data for comparison with information accumulated during and after the flight.

**T**HE FLIGHT CREW spent a total of approximately 90 hours in the "procedures trainer" during which complete mission simulations were practiced. These simulations provided experience in the performance of all flight plan activities and familiarity with range procedures.

Much time was spent practicing manual control of spacecraft attitudes. Emphasis was placed on control of the retrofire maneuver, turnaround following sustainer engine cutoff (SECO), and reaction control system (RCS) checks following insertion. Orbit maneuvering

## Meet America's New Astronauts (Cont.)

Safety School of the University of Southern California in 1961.

He has logged more than 2400 hours' flying time, including 1700 hours in jet aircraft.

He is five feet 11 inches tall and weighs 165 pounds. Lovell is married and has three children.

★ **CAPT CLIFTON C. WILLIAMS, JR., USMC**, 32 years old, was born in Mobile, Ala.

He entered the Marines in August 1954. He is a graduate of the Navy Test Pilot School at Patuxent and is currently a student at the Marine Corps Intermediate Staff and Command School at Quantico.

Before his assignment to the Marine School, he served at Patuxent as the F-8 project officer, A-4 project officer, and short airfield tactical support officer.

Williams has logged more than 1800 hours' flying time, including more than 1300 hours in jet aircraft.

He is six feet tall, weighs 187 pounds and is unmarried.

★ **LCDR JOHN W. YOUNG, USN**, 34 years old, was born in San Francisco, Calif.

Young joined the Navy in June 1952. His last assignment was as maintenance officer for Fighter Squadron 143 at the Naval Air Station, Miramar, Calif. In 1963 he set world time-to-climb records for the 3000-meter and 25,000-meter events in Project

High Jump. He has logged 2500 hours' flying time, including 1900 hours in jet aircraft.

From 1959 until 1962 he was project pilot and later, program manager for the Navy's F4H weapons systems project, writing technical reports on flight test results of Navy preliminary evaluation and Board of Inspection and Survey Airplane Trials.

Young is 5 feet 9 inches tall, weighs 172 pounds, and is married and has two children.

In addition, two other test pilot trainees are former naval aviators, and one is a former Marine aviator. Elliot M. See, Jr., was a naval aviator from 1953 to 1956; Neil A. Armstrong was a naval aviator from 1949 until 1952, and during the last two years of that service flew 78 combat missions in the Korean action. R. Walter Cunningham joined a Marine squadron in 1953 and remains a Marine Air Reservist with the rank of Captain, flying with VMA-134 at the Los Alamitos, Calif., NAS.

Other test pilot trainees are:

MAJ Edwin E. Aldrin, Jr., USAF; CAPT William A. Anders, USAF; CAPT Charles A. Bassett II, USAF; MAJ Frank Borman, USAF; CAPT Michael Collins, USAF; CAPT Donn F. Eisele, USAF; CAPT Theodore C. Freeman, USAF; CAPT James A. McDivitt, USAF; CAPT Russell L. Schweickart, Air National Guard (Mass.); CAPT David R. Scott, USAF; CAPT Thomas P. Stafford, USAF; and CAPT Edward H. White, II, USAF.



Aldrin



Anders



Armstrong



Bassett



Borman



Collins



Cunningham



Eisele



Freeman



McDivitt



Schweickart



Scott



See



Stafford



White

with the space craft's low thrusters was also simulated.

Additional practice in the manual control task was acquired through the use of the air-lubricated free-attitude (ALFA) trainer at Langley Air Force Base, Va.

System failures in orbit which would require immediate or end-of-orbit reentries were practiced and discussed.

The majority of trainer time was devoted to launch aborts with the support of Mercury Control Center (MCC) and Bermuda (BDA). The astronaut scheduled for space flight was subjected to simulated system malfunctions of every description. Some of these, with proper corrective action, resulted in continuation of the mission. Others required either immediate or fixed time aborts. These aborts, depending on their nature, could be initiated by either the astronaut or MCC, or both.

Tape recordings of the astronaut's voice were made during these trainer sessions and sent to all range stations so that flight controllers might become familiar with his voice and normal manner of speaking. In addition, physiological and performance data were recorded for postflight comparison with onboard data.

One additional function of the procedures trainer worthy of note is the opportunity it provides to evaluate the pressure suit in the spacecraft environment. The suit restricts mobility considerably, and procedures as well as the special equipment were designed with this limited mobility in mind.

These simulations were excellent not only from the training standpoint, but because they stimulated original thinking that was rangewide, and many flight plan and mission-rule inputs resulted. Much was learned both by the astronaut and the flight control teams. If one activity were to be singled out as being the most valuable in preparing for the flight, it would be this procedures training.

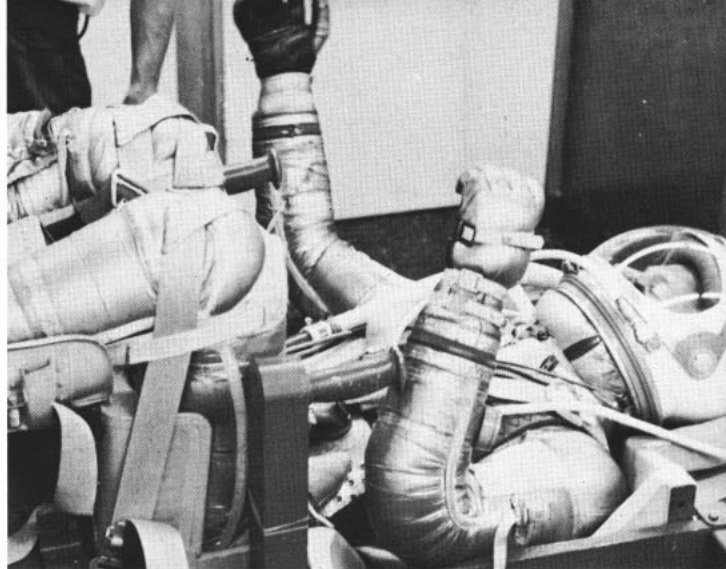
**S**INCE ITS INCEPTION, the Mercury physical training program has been the option of the individual. One pilot elected to exercise by running. During a three-year period, he steadily built up from one mile to five miles a day. For the three months preceding the flight, he ran five miles nearly every day, except for the final week when he tapered off to two miles, and one mile and then two days of complete rest prior to the flight.

This activity, including dressing and showering, required about one hour per day. It is felt that this is a reasonable amount of time to be so devoted, and anything much short of this is insufficient to maintain good physical condition.

A two-day period was spent at the Morehead Planetarium in Chapel Hill, N. C. This proved to be an invaluable aid in familiarization with the heavens in general, and particularly with those constellations and star patterns that might reasonably be visible through the window for the MA-6 launch date.

Additional study of the constellations was aided by the use of a Farquahr celestial sphere and many star charts, astronomy books and star finders. A star chart, which proved to be not only a valuable study aid but also a good navigation aid and darkside yaw reference device for inflight use, was developed.

Two briefings with the ad hoc committee for "Astronomical Tasks" and with scientists of the Project Weather



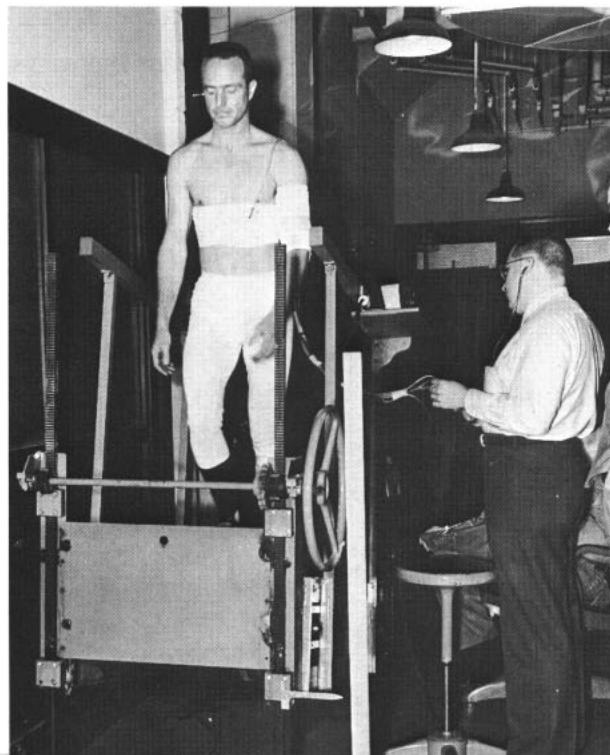
**SUITS HIM**—Many mockups helped prepare astronauts for blast-off, orbital flight, re-entry and recovery.

er Support Group and the U. S. Weather Bureau Meteorological Satellite Laboratory were held in Washington, D. C. During this time observations of interest to both agencies were discussed. Development of special equipment resulted from these discussions also.

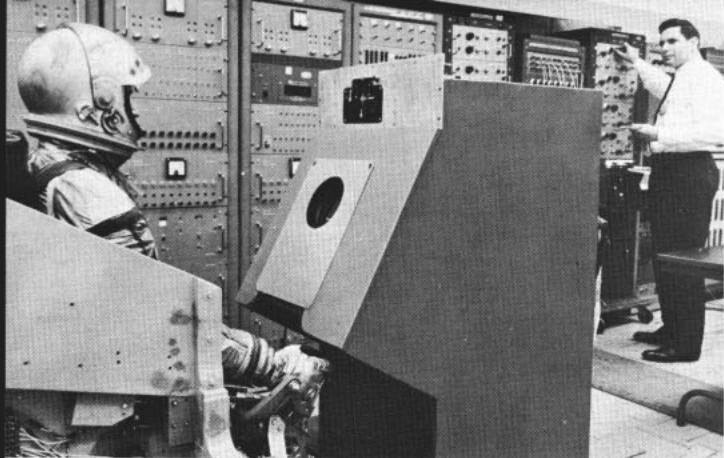
**A**S A RESULT of the preflight briefings, the need for some special equipment was apparent, and a container for this equipment was needed. Here are brief descriptions of this equipment:

- Two large toothpaste tubes were filled separately with applesauce and beef stew. A screw-on straw which punctured the seal on the top of the tube was provided to duct the food over the lip of the helmet to the mouth.
- The pill tube held 10 pills and was spring-loaded for easy extraction of the pills. Each pill measured about three-eighths of an inch thick and three-fourths of an inch in diameter. Nine of the pills were chocolate malt

**TESTING**—Project Mercury astronaut Malcolm S. Carpenter walks treadmill while wired for a physical check.







**'FLYING HIGH'**—During training, analog flight simulator creates space flight problems for astronaut to solve.

tablets and the other was made of xylose, which is a traceable form of sugar and was included to measure the rate at which the intestine absorbs food during weightlessness.

- Pliers were included to facilitate egress through the top of the spacecraft if the pip pins on the parachute canister became jammed, or in the event of a survival situation where pliers have no substitute.

- The "bulb block" contained extra amber, green and red bulbs to be used in the event of telelight or warning light bulb failure.

- A waterproof bag was provided for film stowage after landing and before recovery.

- A camera filter was provided for use with the infrared film and was to be mounted inside the camera when the infrared film was used.

- Extra film was carried for the regular camera; only the one roll of ultraviolet film already in the ultraviolet camera was carried.

- An ultraviolet spectrograph consisting of a 35-mm

camera equipped with a special quartz lens and prism system was developed for use through the spacecraft window in the 2000 to 3000 angstrom wave length band. A demountable reticle was provided for sighting on the star.

- A 35-mm camera with a 50-mm F2.8 lens and a photocell which automatically adjusted the F stop was used for daylight photography. Considerable development effort was required to modify the camera for use in the spacecraft by the astronaut in a pressure suit.

- An airglow filter was included. It is a device which filters out all light except the 5577 angstrom wave length, one of the bright lines of the airglow spectrum. It was intended to be used as an aid in studying the patterning of the airglow layer.

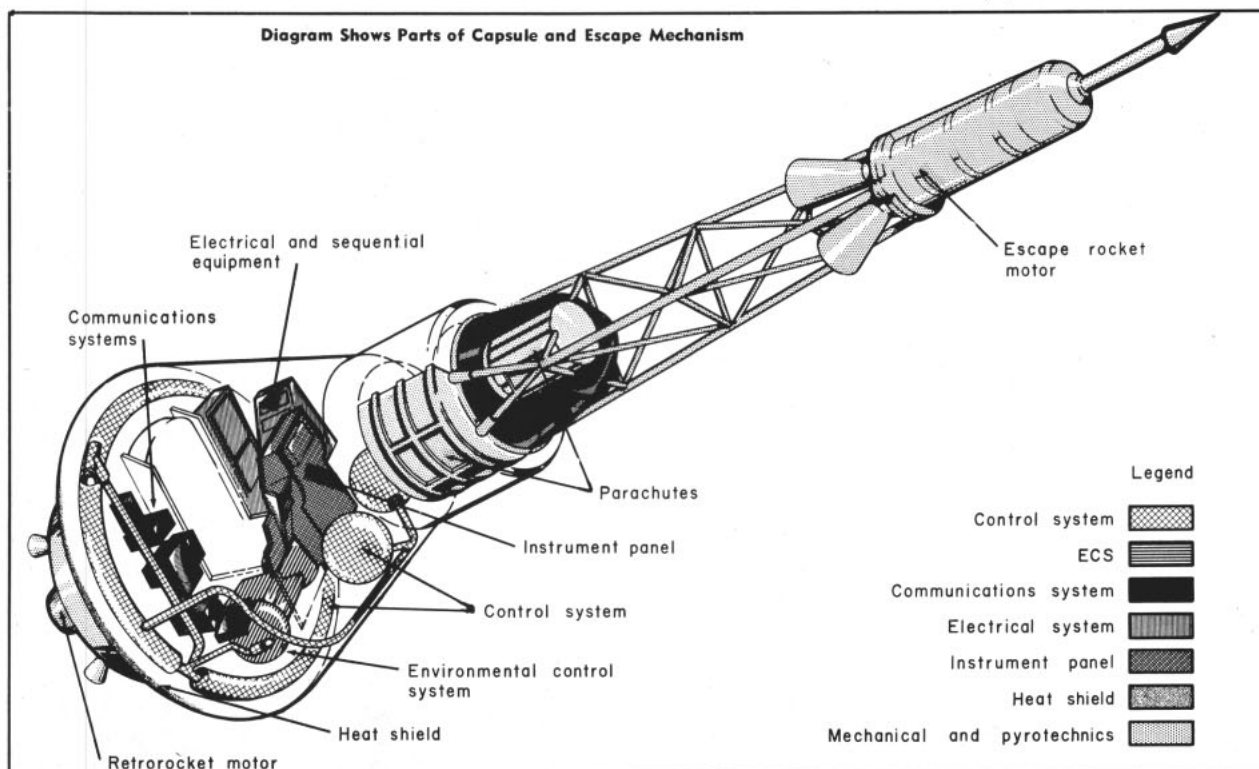
- The binoculars were of a miniature type, eight-power with 50-mm objectives.

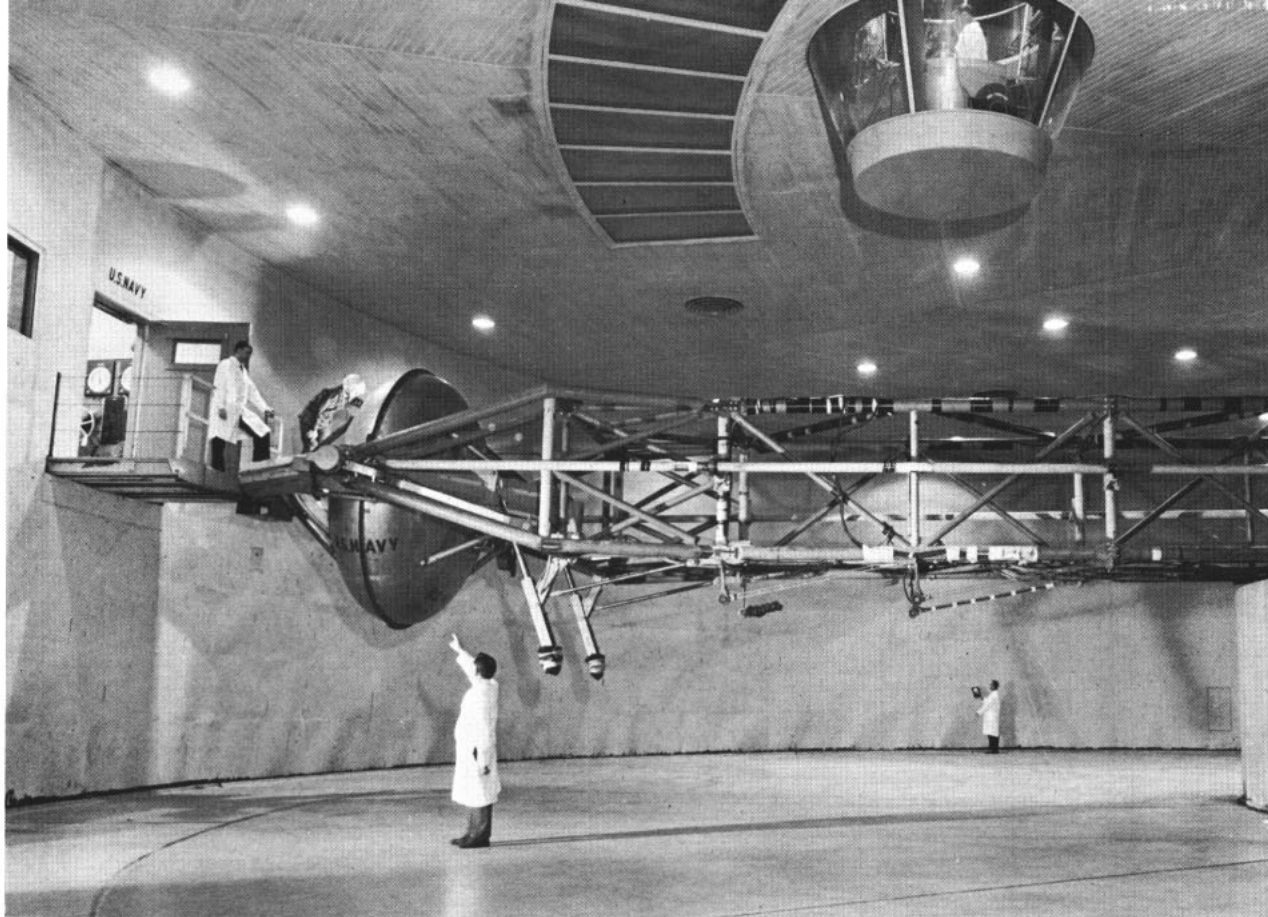
- The filter block was provided for use with the V-Meter. It allowed all the normal exterior observations to be made while excluding all but red, green or blue light. The V-Meter is designed to be used for 16 astronomical and physiological tests. It is also known as the extinctospectropolariscope-occulogyrogravoadaptometer.

All this equipment was carried in an accessory kit located by the astronaut's right arm. Accessibility was not good but it was the only space available. Use of the equipment was further hampered by the need for a restraining line to each item which was secured to the accessory kit.

In addition to this equipment in the accessory kit, a knee pad, knife, scissors, survival kit, flashlight, star charts, and an orbital chart book with an overlay of world-wide weather were carried.

A discussion of this equipment is pertinent to the astronaut preparation phase because not only was a





ROUND HOUSE—Centrifuge training at Naval Air Development Center simulated stresses that would be felt in flight.

great amount of time spent in the development and modification of the equipment, but a like period was involved in becoming proficient in its use.

**M**UCH TIME had been spent in egress training prior to the crew selection and little remained to do but polish the procedures.

Egress from the small end and side hatch of the spacecraft was practiced with both HUS and HR2S helicopters at Langley Air Force Base, Va.

Egress was practiced by other members of the astronaut team with a destroyer out of Norfolk, Va., and they reported no problems.

At Cape Kennedy (then Cape Canaveral), two three-hour periods were spent with the LARC amphibious vehicle in deep water familiarization with the liferaft and survival equipment. Many equipment and packing modifications resulted from this work.

Pad egress practice was accomplished at Cape Kennedy utilizing the Midas Tower and the M113 armored vehicle. This practice acquainted all launch complex personnel with the problems related to egress from the spacecraft with launch vehicle in an unsafe condition.

A form of egress training was conducted at the end of each trainer session by going through the actual sequence of events from parachute deployment to actual egress. This practice helped to smooth the existing procedures as well as to develop new ones.

Because of the many delays which preceded the launch of MA-6, it was felt in some quarters that the astronaut might be overtrained. On the contrary, there was easily enough work to fill the available pre-flight period. During the many delays, he continued to train,

modify and practice procedures, and work with and modify the accessory equipment.

**M**ANY OTHER studies were conducted which do not fall into any of the previously mentioned categories. A considerable amount of time was spent on:

- Star recognition.
- Morse code practice.
- Study of aerial photographs.
- Study of world charts.
- Study of *Tiros* photographs.
- Study of photographs from previous Mercury flights.
- Study of mission rules.
- Study of *Atlas* systems.
- Attending briefings.
- Physical examinations.
- Correction of minor pressure suit difficulties.

Training data indicated continued improvement up to the day of launch.

The backup astronaut's role throughout was to participate in as much of the training activity as was consistent with the astronaut's need for direct support and the need for an astronaut as spacecraft observer during system tests. Knowing what is involved in this job, it is difficult to envision mission accomplishment in a comparable amount of time without the services of a backup pilot.

The training period in general went very smoothly. Cooperation was the keynote. A few blind alleys were stumbled into but a sizable extension was made to the trail. It is hoped that through the first astronauts' efforts, the way for those who will follow will be easier.

# TAFFRAIL TALK

**D**ESPITE THE MOANS of old salts who claim it ain't so, whaleboat racing is still alive in the Fleet. The sport, in fact, was recently brought up to date by the three ships of Destroyer Division 82, who raced their boats in a smooth sea off the coast of Florida. There was only one deviation from the traditional style: the whaleboats had motors.

The three ships, *uss Luce* (DLG 7), *Fiske* (DDR 842) and *Myles C. Fox* (DDR 829) lay to in a triangular position about three miles in perimeter. Alongside *Luce* a motor whaleboat from each ship waited for the starting signal. *Luce* fired her saluting battery and the race was on.

Nearing the first mile turn the boats were gunwale to gunwale in a tight pack. Then the *Fox* entry had to drop out.

The remaining two boats neared the second turn neck and neck. Rounding the turn they headed back toward *Luce* in the final lap. The *Luce* boat was ahead, but *Fiske* was only a half-length behind and gaining. With the finish line only yards away *Luce* had lost all but three feet of her lead.

The saluting battery fired again as the boats crossed the finish line, *Luce* still holding her narrow lead.

We passed this report over to the cognizant section in the Office of the Chief of Naval Operations for comment. No objection to publication, they said, adding, "There are no known regulations which would prohibit a race of this nature, providing the engine governors are not disconnected or otherwise bypassed." COMCRUDESANT staff, however, is not encouraging motor whaleboat races.

★ ★ ★

**I**F YOU HAVE been in communication with any of the offices in the Bureau of Naval Personnel recently, you will note that something has been added to the official BuPers letterhead stationery. It includes the slogan "People to the Fore in 1964."

This slogan serves to point up the fact that the Chief of Naval Personnel aims to focus attention on the theme that 1964 is the "year of the people." In the development and procurement of the "hardware" required in modern warfare, the needs of the individual who operates the hardware have sometimes fallen into second place. But more than ever before, the role of Navymen is recognized as a dominant factor in the continuing forward movement and dynamic development of the sea service.

Therefore, to balance the picture, BuPers recognizes that Navymen—and their families—should be given even greater consideration in planning and programing.

In adopting this slogan the Chief of Naval Personnel anticipates that the message will spread throughout the entire Navy, and beyond. Already the theme is stimulating conversation and thought—and action. If each echelon gives more consideration to the effects on people of every decision and program in all areas—operational, fiscal, weapons—results will be felt in "greater efficiency, higher morale and a stronger sea service."

*The All Hands Staff*

## The United States Navy

### Guardian of our Country

The United States Navy is responsible for maintaining control of the sea and is a ready force on watch at home and overseas, capable of strong action to preserve the peace or of instant offensive action to win in war.

It is upon the maintenance of this control that our country's glorious future depends. The United States Navy exists to make it so.

### We Serve with Honor

Tradition, valor and victory are the Navy's heritage from the past. To these may be added dedication, discipline and vigilance as the watchwords of the present and future. At home or on distant stations, we serve with pride, confident in the respect of our country, our shipmates, and our families. Our responsibilities sober us; our adversities strengthen us.

Service to God and Country is our special privilege. We serve with honor.

### The Future of the Navy

The Navy will always employ new weapons, new techniques and greater power to protect and defend the United States on the sea, under the sea, and in the air.

Now and in the future, control of the sea gives the United States her greatest advantage for the maintenance of peace and for victory in war. Mobility, surprise, dispersal and offensive power are the keystones of the new Navy. The roots of the Navy lie in a strong belief in the future, in continued dedication to our tasks, and in reflection on our heritage from the past.

Never have our opportunities and our responsibilities been greater.

**ALL HANDS** The Bureau of Naval Personnel Career Publication, solicits interesting story material and photographs from individuals, ships, stations, squadrons and other sources. All material received is carefully considered for publication.

Here are a few suggestions for preparing and submitting material:

There's a good story in every job that's being performed, whether it's on a nuclear carrier, a tugboat, in the submarine service or in the Seabees. The man on the scene is best qualified to tell what's going on in his outfit. Stories about routine day-to-day jobs are probably most interesting to the rest of the Fleet. This is the only way everyone can get a look at all the different parts of the Navy.

Research helps make a good story better. By talking with people who are closely related to the subject material a writer is able to collect many additional details which add interest and understanding to a story.

Articles about new types of unclassified equipment, research projects, all types of Navy assignments and duties, academic and historical subjects, personnel on liberty or during leisure hours, and humorous and interesting feature subjects are all of interest.

Photographs are very important, and should accompany the articles if possible. However, a good story should never be held back for lack of photographs. **ALL HANDS** prefers clear, well-identified, 8-by-10 glossy prints, but is not restricted to use of this type.

**ALL HANDS** does not use poems (except New Year's day logs), songs, stories on change of command, or editorial type articles. The writer's name and rate or rank should be included on an article. Material timed for a certain date or event must be received before the first day of the month preceding the month of intended publication.

Address material to Editor, **ALL HANDS**, 1809 Arlington Annex, Navy Department, Washington 25, D. C.

• **AT RIGHT:** ON GUARD—Boatswain's mate third class Dexter Little, USN, attaches decorative rat guard to bow lines of USS *Fulton* (AS 11) in port at New London, Conn. The hungry cat was designed and painted by Miguel Garcia, Sr., EMFA, USN.

• **BACK COVER:** Inspiration for the back cover of this month's **ALL HANDS** came from a Reserve Intelligence unit.







# TEN RULES

spell

# LEADERSHIP FOR NAVYMEN



- L**oyalty ----- To both principle and personnel ----- ★
- E**fficiency ----- In use of men and materiel ----- ★
- A**ction ----- After due deliberation, based upon knowledge --- ★
- D**elegate ----- Wisely—but Delegate ----- ★
- E**ffectiveness ----- In human relations; strive for it ----- ★
- R**esponsibility ----- Demonstrate it ----- ★
- S**elf-respect ----- Prerequisite of success ----- ★
- H**onor ----- Your organization and your service ----- ★
- I**nitiative ----- Exemplify it and expect it ----- ★
- P**raise in public --- Reprimand in private ----- ★